

EXAMINING THE EFFECTIVENESS OF THE “LATINO/A EDUCATIONAL EQUITY
PROJECT” (LEEP): A PROGRAM DESIGNED FOR LATINO/A COLLEGE
STUDENTS

by

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The purpose of this dissertation study was to examine the effectiveness of an intervention program specifically designed to facilitate social awareness and adjustment to college for Latino/a students enrolled in four-year universities in the Pacific Northwest. I designed an intervention program, the Latino/a Educational Equity Project (LEEP), as a multifaceted prevention intervention to increase student capacities and knowledge of: (a) the importance of building a network of individuals to support their academic endeavors, (b) political awareness of race and higher education and the importance of college retention and completion, (c) awareness of university demands and development of skills that are needed to balance home and university demands, as well as (d) comfort with and increased utilization of campus resources. As identified by the

research literature, these components have been associated with both the needs of Latino/a students in higher education and with Latino/a student retention.

I utilized quasi-experimental design with between- and within-subject measurement, including assessments at pre- and three-week post-test, to evaluate the effects of the LEEP program in comparison with a no-treatment control condition. The LEEP intervention was conducted at three public universities in the Pacific Northwest. The total sample for the present study was 40 treatment participants and 41 participants in the control condition.

A repeated-measures MANCOVA was utilized to assess the effectiveness of the LEEP intervention program. Results demonstrated partial success for the LEEP intervention program. The intervention successfully improved participants' overall adjustment to college in comparison with control condition participants. However, intervention effects for LEEP participants were not statistically different from control participants on outcomes related to increased critical consciousness, collective self-esteem, or enhanced cultural congruity. Initial pre-test scores and lower statistical power than optimal (.35) for this type of study may partially explain why the intervention was not fully successful in these other areas.

A discussion of results, strengths, and limitations of the present study and implications for future intervention research and practice and provided.

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CHAPTER I

INTRODUCTION

According to the US Census Report, Latino/as are the fastest growing ethnic group in the United States (U.S. Bureau of the Census, 2000). However, the number of Latino/as enrolling in four-year universities and attaining college degrees remains proportionally low in comparison with White, non-Hispanics (U.S. Bureau of the Census, 2003). This educational disparity is alarming in light of economic changes and the growing competitiveness of “high end” occupations within the United States (Miller, 2005). As the number of Latino/as continues to grow so will the mental health, educational, and economic needs of this population. As such, in order to help facilitate the economic and social development of the Latino/a community, greater numbers of Latino/a young people must successfully enter and complete post-secondary education.

Major historical events such as the Civil Rights Act of 1964 and *Grutter v. Bollinger* (2003) have set the tone for Latino/a college students’ current experiences in university (Cuadraz, 2005). Thus, understanding the experiences of Latino/as in higher education necessitates an historical and political analysis. Hernandez (2002) states that Latino/a college students experience the typical developmental challenges that most college students experience along with additional cultural, economic, social, and political challenges that deter successful completion of college. Far greater attention must therefore be given to the unique needs and experiences of Latino/a college students with a

specific focus directed toward the design and implementation of support, recruitment, and retention programming for this population.

The purpose of this dissertation study was to examine the effectiveness of an intervention program designed to improve social awareness and adjustment to college among Latino/a college students in the Pacific Northwest. The intervention program, the Latino/a Educational Equity Project “LEEP”, is grounded in the evidence that positive adjustment increases retention of Latino/a college students. LEEP is comprised of four key components: (a) building community, (b) increasing critical consciousness, (c) raising awareness of cultural congruency, and (d) improving the utilization of campus resources. Each of these elements has been hypothesized to be critical in assessing college students and Latino/as in different contexts.

Results demonstrated partial success for the LEEP intervention program for Latino/a college student participants. The intervention significantly improved treatment/experimental participants' ($n = 40$) overall adjustment to college in comparison with control condition participants ($n = 41$). Intervention effects for LEEP participants were not statistically different from control participants, however, on outcomes related to increased critical consciousness, collective self-esteem, or enhanced cultural congruity. Initial pre-test differences, lower statistical power than optimal (.35), and measurement issues may partially explain the lack of significant effects in these other areas.

Organization

In the following pages, I first present a brief history of Latino/as in American post-secondary education. Second, I review commonly utilized academic assistance programs

that are used with college students who are at risk of not completing college. This review includes mentorship programs and federally funded initiatives. Third, I describe the theoretical frameworks guiding the development and implementation of the intervention program. Fourth, I describe the LEEP intervention that emerges from both theoretical and intervention literature. Fifth, I describe the methodology for carrying out the LEEP intervention. Sixth, I present the results of the statistical analyses. Finally, I present interpretation of results and recommendations for future research and clinical practice with Latino/a college students.

As the number of Latino/as residing in the United States continues to grow, it is increasing imperative for Latino/a young people to enter and complete post-secondary education as a means of meeting the growing economic, educational, and mental health needs of the Latino/a community. However, in the pursuit of educational attainment, researchers have identified a number of academic and social challenges commonly experienced by Latino/a college students that include tangible factors such as financial stress and being the first in one's family to attend college (Pew Hispanic Reports, 2002; Ginorio & Huston, 2001) and more ambiguous factors such as hostile university climate (Cabrera, & Padilla, 2004; Reid, 2003; Hurtado & Carter, 1997; Hurtado, Milem, Clayton-Pederson, & Allen, 1996; Gloria & Rodriguez, 2000; Cuadraz, 2005; Solorzano, 2005) and cultural congruency (Gloria & Robinson-Kurpius, 1996; Gloria et al., 2005).

Data also illustrates that Latino/a students are likely to be the first in the families to attend college, to contend with financial stressors, and to disproportionately drop out of

college (Pew Hispanic Reports, 2002). As such, Latino/as comprise only 6% of all bachelor's degrees attained in the United States (in the years 1999-2001; NCES, 2003).

A primary factor that affects many Latino/a students is campus climate. As compared with other students, Latino/as (Hurtado & Carter, 1997) were found to report more negative perceptions of campus climate than their White peers. For ethnic-racial minority students, negative perceptions of campus climate have been associated with poor academic performance and low self-esteem (Reid, 2003). Furthermore, Reid found that students of color—Latino/a, Asian American, and African American—differed significantly in their perceptions of racial and academic campus climate than a sample of White students, with students of color holding more negative perceptions. Altogether, the myriad of challenges to college completion demands for a more holistic understanding of Latino/as experiences in higher education.

In the next section I present a brief review and analysis of historical precedents that have helped set the tone for current trends that Latino/as experience in university. The purpose of this section is to provide a socio-political backdrop that aids in the understanding of Latino/a college students' experiences with university culture and climate.

As the number of Latino/as residing in the United States continues to grow, it is increasing imperative for Latino/a young people to enter and complete post-secondary education as a means of meeting the growing economic, educational, and mental health needs of the Latino/a community. However, in the pursuit of educational attainment, researchers have identified a number of academic and social challenges commonly

experienced by Latino/a college students that include tangible factors such as financial stress and being the first in one's family to attend college (Pew Hispanic Reports, 2002; Ginorio & Huston, 2001) and more ambiguous factors such as hostile university climate (Cabrera, & Padilla, 2004; Reid, 2003; Hurtado & Carter, 1997; Hurtado, Milem, Clayton-Pederson, & Allen, 1996; Gloria & Rodriguez, 2000; Cuadraz, 2005; Solorzano, 2005) and cultural congruency (Gloria & Robinson-Kurpius, 1996; Gloria et al., 2005).

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purpose of this section is to provide a socio-political backdrop that aids in the understanding of Latino/a college students' experiences with university culture and climate.

Historical Analysis

Solorzano et al. (2005) describe the importance of utilizing Critical Race Theory (CRT) as a framework for understanding Latino/a participation in post-secondary education. Within educational settings, CRT has been described as a framework that emphasizes the importance of viewing educational policies and policy making within a historical and cultural context as well as analyzing racial exclusion and other forms of discrimination against college students (Villalpando, 1994). Five critical components are utilized to examine Latino/a college students within a CRT framework: (a) the centrality of examining race and racism within university structures, practices, and discourse, (b) the challenge to dominant ideology, (c) a commitment to social justice and praxis, (d) a centrality of experiential knowledge from people of color, and (e) an historical context and interdisciplinary perspective (Solorzano et al.; Villalpando).

The largest influx of Latino/as in university occurred in the 1970's following the Civil Rights and Women's Movements and the implementation of needs-based financial aid (Cuadraz, 2005). In response to the social justice movements of the 1960's, President Kennedy created the Committee on Equal Employment Opportunity in 1961 and issued Executive Order 10925 which referenced "affirmative action" as a method designed to achieve non-discrimination in employment and access to higher education (Gandara, & Orfield, 2006). Additionally, needs-based financial aid was made available to Latino/as

via low-interest loans from the National Defense Education Act of 1958, grants, loans, and work-study from Title IV of the Higher Education Act of 1965, and from Public Law 346, also known as the GI Bill, for ex-servicemen interested in pursuing higher education. Though great strides were made with respect to college enrollment and completion for Latino/as during the 1970s, the end of this decade was marked by a decline in the commitment to affirmative action and Reagan-era financial-aid cuts (Gandara, & Orfield, 2006).

Latino/a post-secondary enrollment reached its peak in the mid-70s and was unmatched until a decade later in the mid-80s (Gandara, & Orfield, 2006). However, the 1990s were marked by anti-affirmative action rhetoric that swept across the United States. During this time, major Latino/a residential areas were targeted. For instance, the state of California passed Proposition 209 in 1996 that banned affirmative action as grounds for hiring and admissions decisions and the *Hopwood v. State of Texas* (1996) ruling declared affirmative action considerations in college selection to be illegal in that state (Chapa, 2005). Anti-affirmative action proponents argued that the “playing field” had been leveled and that low college application, enrollment, and graduation rates among students of color were related to students’ “disinterest” in education (Chapa, 2005).

In June 2003, the United States Supreme Court made a landmark ruling with *Grutter v. Bollinger* that supported the consideration of race as a factor in college admissions (Chapa, 2005; Solorzano et al., 2005). Justice Sandra Day O’Conner wrote, “Today we endorse Justice Powell’s view that student body diversity is a compelling

state interest that can justify the use of race in university admissions” (p. 16). However, Justice O’Conner also argued that race and ethnicity would become irrelevant considerations for college admissions in 25 years, essentially placing an alarm clock on the use of affirmative action (Solorzano et al., 2005).

Beyond facilitating college admission, support programming must also work toward successful retention and completion of college for Latino/as as well as other student of color communities. The following section reviews the two most commonly cited programming in the psychology and education literature, mentorship models and federally funded programs.

Review of Academic Assistance Programs

A number of educational programs are utilized to provide students with academic assistance and social support (Santos & Reigadas, 2002). However, many of these programs have not been documented and are therefore not commonly found in the education literature (Haring, 1999). Of the programs that have been documented, the most researched include mentoring programs and TRIO programs implemented through federal policies and funding.

Mentoring Programs

Many universities offer general educational and social support programs that include mentorship as a key component to their services. Lansing Community College in Lansing, Michigan provides a strong example with their *LUCERO* program (Cunningham, Cardenas, Martinez, & Mason, 2006). *LUCERO*, the Spanish word for “shining star” also serves as an acronym in English for “Latinos United with Energy,

Respect, and Pride”. This program is comprised of five key components: (a) technology—each participant can earn access to a laptop if they meet the minimum program requirements; (b) community connections—Latino/a community leaders often participate in panel discussions for the program participants; (c) workforce development—participants are teamed up with a mentor from their desired career field; (d) academic success—students are provided with tutors, advisors, and academic workshops; and (e) mentoring and support—students and their parents are in close connections with program peers and the program director. Following a one-year evaluation of the *LUCERO* program, participants demonstrated a retention rate of 80% as compared to the 56% of the general campus community. Further, 90% of the participants identified themselves as “degree seeking” and reported plans to transfer to a four-year university to pursue a baccalaureate degree.

In another example, Thile & Matt (2005) evaluated the efficacy of a retention program for Latino/a and African-American first-year and transfer students at a predominately White state university. The *Ethnic Mentor Undergraduate (EMU) Program* is a mentorship program that is based on Tinto’s (1987) model of student development and serves to facilitate academic enhancement, ethnic group and personal pride, and provide students with a positive support system. Logistical components of EMU are that each program participant a) is assigned an advanced undergraduate student mentor, b) assigned a faculty mentor, and c) participates in academic workshops centered on group cohesiveness and mutual support. Participants in this program consisted of 27 women and 5 men with an ethnic-racial breakdown of 10 African-American, 19 Latino/a,

and 3 Filipino students; 17 of the students were freshman and 15 were first-year transfer students from community colleges. EMU participants demonstrated strong retention rates following one-year evaluation. Results indicated that after one year in the program, 82% of the EMU freshman and 87% of the EMU transfer juniors returned for the second year as compared with university-wide retention rates of 73% for freshmen and of 67% for all transfer juniors. Thus, the EMU program proved effective in increasing retention for the participants in their study.

Santos & Reigadas (2002) evaluated the effectiveness of a faculty-mentoring program (FMP) on Latino/a students' personal and social adjustment to college at California State University, Dominguez Hills. Thirty-two participants completed a survey regarding their perceived adjustment to college as well as their perception of faculty mentors and the program itself. Results indicated that participants improved with regards to better-defined academic goals and college self-efficacy from their participation in FMP. Further, greater frequency of contact with a faculty mentor was positively associated with college self-efficacy, better-defined academic goals, and a higher level of concern to perform well and meet academic obligations. Lastly, the researchers examined the importance of matching students with faculty mentors of the same self-identified ethnic-racial background. Students with matched ethnic-racial mentors reported greater satisfaction with the program than non-matched students. The researchers state that this finding may be related to students' desire and need for social integration within the university social system.

Government Funded Programs (TRIO and SSS)

Federal higher education programs fall under the umbrella of TRIO (described as the initial group of “three sister” federal programs). TRIO was established in 1965 in response to the Economic Opportunity Act legislation (Balz, & Esten, 1998). During that time, congress mandated that two-thirds of TRIO participants be low-income (family income of less than \$24,000), first-generation college students. Since its inception in 1965, TRIO now houses eight separate programs that include Student Support Services (SSS)—the entity charged with undergraduate students. The purpose of SSS is to provide “opportunities for academic development, assists students with basic college requirements, and serves to motivate students toward the successful completion of their postsecondary education (p. 141; U.S. Department of Education, 2006)”. Further, SSS aims to increase college retention and graduation and to help students transition from one level of higher education to the next. TRIO’s programming includes academic assistance via instruction and tutoring, financial assistance via scholarships and financial aid advising, as well as personal counseling and mentoring.

Balz, & Esten (1998) examined how TRIO/SSS participation at private institutions affects student enrollment and persistence toward the baccalaureate degree. The researchers collected 10-year follow-up surveys from former TRIO students and a comparable homogeneous group who met TRIO eligibility but did not participate in the program. TRIO participants reported more educational attainment than non-TRIO students with higher levels of graduate school attendance, 11% and 5%, respectively, and higher attainment of baccalaureate degrees, 30% and 13%, respectively. Further, TRIO

participants also reported feeling more satisfied with the counseling and job placement opportunities at their university than non-TRIO students.

Researchers examined the graduation rates of 979 SSS participants from Rutgers University between the years of 1980 and 1992 who were first generation, full time college freshmen cohorts (Thomas, Farrow, & Martinez, 1999). The SSS participants in this study were compared with national data of a homogeneous group of non-SSS students. The average ethnic-racial breakdown of the SSS cohorts were 61% African American, 20% European American, 9% Puerto Rican, 6% Asian American, and 3% other. The goal of the Rutgers SSS program is to graduate 50% of their incoming freshmen cohorts. For the 13 cohorts examined in this study, 11 of the 13 met the goal of 50% graduation rate. Further, Rutgers SSS students demonstrated higher graduation rates than non-SSS students with graduate rates of 56% and 46%, respectively.

In summary, although many academic assistance programs exist they have not been subjected to rigorous evaluation and are not well documented in the education literature (Haring, 1999). Programs that have been examined illustrate the importance of facilitating students' social connections with peers and instructors as well as helping students navigate university demands and culture. However, most programs developed do not reflect attention to methods for supporting students' socio-emotional adjustment to college and the role ethnic-racial identity plays in students' integration into university social systems.

Because there was not enough evidence or information about existing programs, and due to inattention to cultural factors, I developed the LEEP program. The Ecological

Model and Critical Race Theory, along with existing research findings, were used in developing LEEP. A description of the theoretical models is provided in the next section.

Ecology of Presenting Issues

Bronfenbrenner's (1979; 1989) *Ecological Model* of human development was a theoretical framework that I utilized to conceptualize and create LEEP. The *Ecological Model* (Bronfenbrenner) asserts that human behavior always occurs within a context and that these contexts must be considered if behaviors, cognitions, and emotions are to be understood. The *Ecological Model* includes five nested ecological systems with the individual at the center of these systems (see Figure 1). The first level of ecology, the *individual*, consists of biological predispositions and inherited characteristics such as age, height, eye color, and innate intelligence. The second level of ecology, the *microsystem*, consists of units such as family, university, peer group, church community, and immediate influences in the individual's environment such as the campus climate. The third level of ecology, the *mesosystem*, is made up of the relationships between units in the individual's immediate environment, that is, the relationships between the microsystems. For example, this level of ecology attends to the relationships between the family unit and the university, and deals with questions such as "how do the family and university interact with one another?" and "what influence does this relationship have on the student's experiences in higher education?" The result of interactions between immediate units may pose positive, neutral, and/or negative influences on the individual. The fourth level of ecology, the *exosystem*, consists of environmental factors that influence development but that the student is not directly involved with. In the college

environment, these may include such factors as university policies that dictate admissions policies, mentoring and tutoring programs for ethnic-racial minority students, and other student support services. The fifth level of ecology, the *macrosystem*, encompasses societal values that define cultural experiences, such as racial identity and gender role expectations. Finally, the sixth level of ecology, the *chronosystem*, is described as the intercorrelations and interactions between the individual and their environment over time.

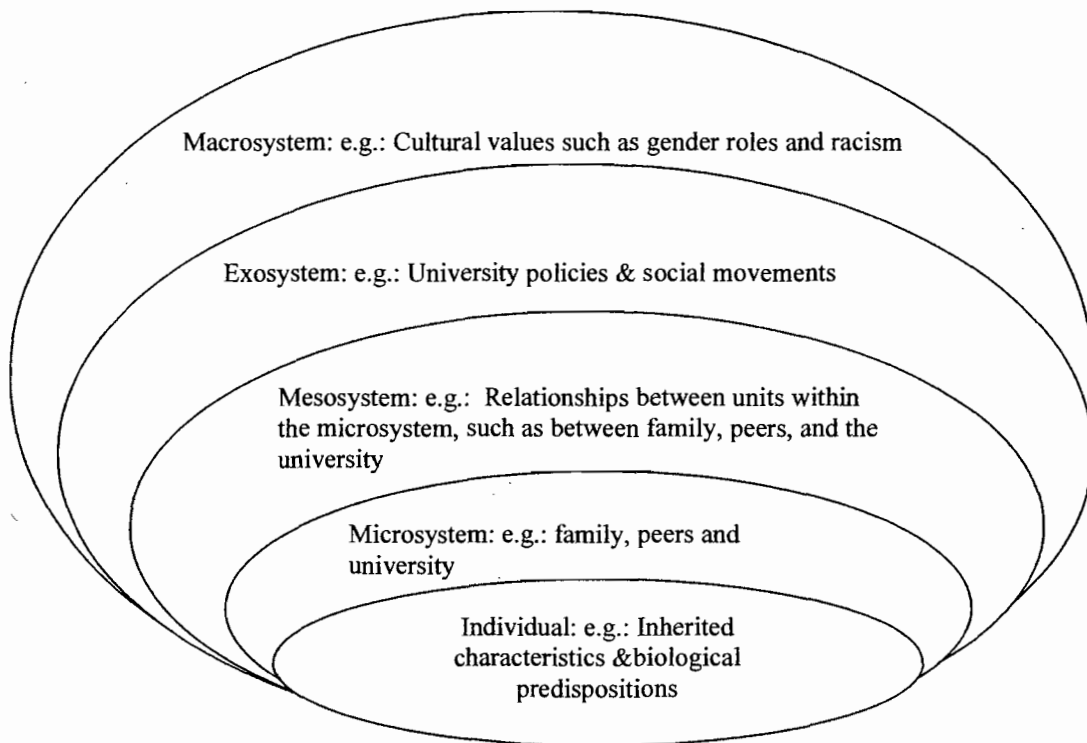
An additional key element of the *Ecological Model* is the process of *bi-directionality* (Bronfenbrenner, 1979). Bi-directionality is defined as the influence each ecological system exerts over the individual's development, as well as the power the individual holds to effect change within each of the ecological systems (Bronfenbrenner, 1979; Yakushko & Chronister, 2005). For instance, bi-directionality describes the impact of campus climate on students' social adjustment to college as well as students' ability to effect change upon their campus climate through activities such as social advocacy, student advisory processes, and so forth. This process illuminates the agency individuals hold within their lives to create change upon the systems that operate in their lives and upon potentially oppressive systems.

An important point to remember is that some experiences occur within multiple ecological systems simultaneously. For instance, family support for education may be impacted by financial ability (microsystem), relationships that family members hold with academia (mesosystem), and gender role expectations (macrosystem), among other factors. For the purposes of this dissertation study, the *Ecological Model* is used as a

backdrop to examine general experiences of university climate and culture often experienced by Latino/a college students (see figure 1).

Figure 1.

The Ecological Model



Critical Race Theory (CRT)

CRT was the second theoretical model utilized in the creation and implementation of the intervention program. Villalpando (1994) describes CRT as a framework that emphasizes the importance of viewing educational policies and policy-making within a historical and cultural context, as well as analyzing racial exclusion and other forms of discrimination against college students. CRT emphasizes five critical components for

examining Latino/a college students: (a) the centrality of examining race and racism within university structures, practices, and discourse, (b) the challenge to dominant ideology, (c) a commitment to social justice and praxis, (d) a centrality of experiential knowledge from people of color, and (e) an historical context and interdisciplinary perspective (Solorzano et al.; Villalpando).

A key element of CRT is the ability to critically analyze individual or group experiences as within a cultural, political, and historical context. In response to this need, I utilized *Critical Consciousness* (Freire, 1970) as a process of implementing CRT in the creation and implementation of LEEP. In the case of Latino/a college students, critical consciousness is an instrumental factor in facilitating students' awareness and understanding of their experiences in the general climate of the United States, and specifically in American higher education. For the purpose of this intervention program, CRT was specifically utilized for facilitating conversations regarding critical consciousness. Freire defines critical consciousness as the process of "learning to perceive social, political and economic contradictions and to take action against the oppressive elements of reality" (p. 19). The critical consciousness section of the intervention program facilitates consciousness with regards to: (a) general historical and political trends of Latino/as in the United States and (b) higher education trends of Latino/as in the United States.

In summary, the *Ecological Model* (Bronfenbrenner, 1979; 1989) and *Critical Race Theory* (Solorzano, 2005; Villalpando, 1994) were utilized as the theoretical frameworks guiding the creation and implementation of the intervention program. I chose to utilize

these theories because human development is considered within a cultural, political, and historical context. Evidence has demonstrated that these contexts have been instrumental in the retention of Latino/a students in higher education in the United States.

In the next sections of this proposal I introduce the intervention program and present the research questions and hypotheses of this project.

Study Purpose

The purpose of this dissertation study was to examine the effectiveness of an intervention program specifically designed to facilitate social awareness and adjustment to college for Latino/a students enrolled in four-year universities in the Pacific Northwest. I designed an intervention program, the Latino/a Education Equity Project (LEEP), as a multifaceted prevention intervention in order to increase student skills and awareness related to: (a) the importance of building a network of individuals to support their academic endeavors, (b) political awareness of race and higher education and the importance of college retention and completion, (c) university demands and development of skills that are needed to balance home and university demands, as well as (d) comfort with and increased utilization of campus resources. As identified by the research literature, these components have been associated with both the needs of Latino/a students in higher education and with Latino/a student retention (Hurtado, & Carter, 1997; Hurtado, Carter, & Spuler, 1996; Hurtado & PonJuan, 2005; Hernandez 2000, 2002; Gloria, & Rodriguez, 2000; Gloria, Castellanos, Lopez, & Rosales, 2005). I utilized a quasi-experimental design with between- and within-subject measurement,

including assessments at pre-test and three-week post-test, to evaluate the effects of the LEEP program in comparison with a no-treatment control condition.

Research Questions and Hypotheses

Research question 1: Will Latino/a college students who participate in LEEP show greater improvements on measures of adjustment to college at posttest than Latino/a college students in a control condition?

Hypothesis 1: LEEP intervention participants will show significantly greater adjustment to college at post-test than students in a no-treatment control condition.

Research question 2: Will Latino/a college students who participate in LEEP show significantly greater improvements on a measure of collective self-esteem at post-test than Latino/a college students in a control condition?

Hypothesis 2: LEEP intervention participants will show significantly greater improvements on a measure of collective self-esteem at post-test than students in a no-treatment control condition.

Research question 3: Will Latino/a college students who participate in LEEP show significantly greater improvements on a measure of cultural congruency at post-test than Latino/a college students in a control condition?

Hypothesis 3: LEEP intervention participants will show significantly greater improvements on a measure of cultural congruency at post-test than students in a no-treatment control condition.

Research question 4: Will Latino/a college student who participate in LEEP differ in their intention to utilize campus resources at post-test than Latino/a college students in a control condition?

Hypothesis 4: LEEP intervention participants will show significantly greater improvements on intention to utilize campus resources at post-test than students in a no-treatment control condition.

Research question 5: Will Latino/a college student who participate in LEEP differ in their critical consciousness development at post-test than Latino/a college students in a control condition?

Hypothesis 5: LEEP intervention participants will show significantly greater improvements on critical consciousness development at post-test than students in a no-treatment control condition.

CHAPTER II

METHODOLOGY

In this between- and within-subject quasi-experimental design that examined the effects of the intervention program in comparison with a control condition, the first independent variable (factor A) is “group” with two levels: (a) experimental/intervention, and (b) control/non-intervention. The second independent variable (factor B) for this study is time of testing with two levels: (a) pre-test, and (b) post-test. The dependent variables for this study are: (a) adjustment to college, (b) collective self-esteem, (c) cultural congruency, (d) intention to utilize campus resources, and (e) critical consciousness development. Participants completed measures at each of the two time points.

Independent Variables

Experimental Group

Participants in the experimental group participated in the Latino/a Educational Equity Project that was led by a trained group facilitator. The program was designed to facilitate the development of four key elements among Latino/a students: (a) building community, (b) increasing critical consciousness, (c) raising awareness of cultural congruency, and (d) improving the utilization of campus resources. I developed the curriculum for LEEP for the purpose of this study. The LEEP curriculum is fully described in Appendix A.

Control Condition

Participants in the control condition completed the outcome measures during the pre-test and post-test (three weeks following), but did not participate in any intervention or group meeting.

Dependent Variables

Adjustment to College

This variable refers to students' adaptation to the values and demands of the college environment. Such adjustment includes academic, social, personal-emotional, and institutional attachment to the university (Baker & Siryk, 1989).

Collective Self-Esteem

This variable is defined as, "those aspects of the self concept that relate to race, ethnic background, religion, feelings of belonging in one's community, and the like" (Luhtanen and Crocker (1992). Bettencourt, Charlton, Eubanks, Kernahan, and Fuller (1999) found that collective self-esteem predicted social adjustment, academic adjustment, and GPA among a college sample. The researchers suggest that group memberships have the capacity to enhance adjustment, especially when such memberships are consistent with students' social and academic needs and provide positively valued social identities.

Cultural Congruency

This variable refers to students' perceptions of cultural congruity or cultural fit between values from the home environment and values from the university environment (Gloria & Robinson-Kurpius, 1996). Gloria et al. (2005) explains that the university

atmosphere reflects White, middle-class, male values and histories. Thus, many Latino/a students experience a major cultural transition as they move from their home environment to the university campus.

Ethnic Identity

This variable was only used as a pre-test measure. Ethnic identity refers to an enduring and fundamental sense of belonging to an ethnic group along with the feelings and attitudes one holds about his/her respective ethnic group(s) (Phinney, 2003). Ethnic identity does not refer to a categorical label or identification; rather, ethnic identity is a complex, multidimensional construct that varies across individual members of an ethnic group (Phinney, 1996).

Intention to Utilize Campus Resources

This variable refers to students' comfort with and willingness to seek out support services on campus. Such services include: tutoring, academic advising, counseling, mentoring, student groups, technology labs, financial aid, etc. I have created a measure to assess intention to utilize campus resources under the advisement of Benedict McWhirter.

Critical Consciousness Development

This variable refers to students' recognition and understanding of their socio-political experiences as Latino/a college students in a predominately White post-secondary institution. I have created a measure to assess this construct under the advisement of Benedict McWhirter.

Design and Procedures

Sampling and Recruitment

Participants were recruited from four-year post-secondary institutions in the states of Oregon and Washington. For the experimental group, institutions included the University of Oregon, Oregon State University, and Western Oregon University for their geographic location and access to university financial resources. For the control condition, participants were recruited from University of Oregon, Oregon State University, Western Oregon University, Central Washington University, Southern Oregon University, and Oregon Health Sciences University. To recruit participants I asked multicultural program staff to notify their students of the program, visited with established student groups, posted flyers on university campuses, and emailed student list serves. University representations are presented in table 1.

Table 1.

University representation by group

Campus	Experimental	Control Condition	Total
University of Oregon	13	6	19
Oregon State University	16	11	27
Western Oregon University	12	0	12
Central Washington University	0	10	10
Southern Oregon University	0	10	10
Oregon Health and Sciences University	0	1	1

Participant Selection

Participants were required to meet several characteristics to participate in this study. Students were required to be (1) enrolled as an undergraduate student at a four-year university, (2) 18 years of age or older, (3) possess the ability to read, write, and speak English, and (4) identify as being of Latino/a, Chicano/a, and/or Hispanic descent.

Procedures for the Experimental Group

Participants were contacted for participation in this study via email, face-to-face conversations, and telephone. Once participants indicated their willingness to participate in this study, they were assigned to the experimental group and were provided with information for attending the intervention. Experimental group participants received a reminder telephone call and email message that presented the date, time, and site of the intervention program.

The intervention program was conducted in a group format with 5-10 participants in each group. LEEP was implemented over the course of one day for a total of eight hours. At the beginning of the intervention, students participated in an informal breakfast with group members for 30 minutes. Following breakfast, participants began block one of the intervention program that comprised of group building activities for the duration of 90 minutes. Following block one, participants began block two of the intervention program which focused on critical consciousness for a duration of 120 minutes. Following block two, participants were given a half hour break to eat lunch with group members. Following lunch, participants began block three of the intervention program that focused on cultural congruency for a duration of 90 minutes. Following a 15-minute break,

participants began block four of the intervention program that focused on utilizing campus resources for a period of 60 minutes. Finally, students participated in a 15-minute section to complete anonymous evaluations of the intervention program. They were also provided with information for completing the post-test measures and for receiving compensation.

Procedures for the Control Condition

I began recruitment for the control condition after 45 students completed the intervention program. While I planned to collect control condition data at the same time as the intervention group data, the low number of participants I was able to recruit would have delayed the intervention significantly had I assigned some to the control condition. Waiting to fill two groups likely would have led to drop out. In addition, I had trained interventionists ready to provide the LEEP intervention for a limited time-period. To be consistent with my experimental group, I first recruited control condition participants from the University of Oregon, Oregon State University, and Western Oregon University – the campuses where intervention groups were gathered. Due to my need to increase overall participation in the control condition, I then recruited from Portland State University, Southern Oregon University, and Western Washington University via list-serve requests to student organizations and multicultural university programs. Participants were asked to complete on-line questionnaires via [surveymonkey.com](https://www.surveymonkey.com). Participants created identification numbers by using the first three letters of their last name followed by their birth year. For example, my name is Alison Cerezo and my birth year is 1978. My identification number would be: Cer1978. Upon receiving the

completed pre-test assessment, I then sent a thank you email to participants with directions for completing the post-test assessments.

Post-test Procedures for the Experimental Group

I sent post-test assessment packets along with a paid-postage, self-addressed envelope to each participant approximately two weeks following the intervention via postal mail. I mailed a thumb-drive to participants once I received their completed assessment packet. For participants who did not send a completed packet and failed to make contact with me within two weeks of the mailing, I sent reminder emails and left telephone messages to encourage participants to complete the post-test.

Post-test Procedures for the Control Condition

Participants were sent an email message with a link to *surveymonkey.com* to complete the three-week post-test assessments. The email message provided directions for completing the assessments and information about receiving the thumb-drive compensation for their participation. For participants who did not complete the on-line assessment and failed to make contact with me after two weeks of the initial email, I sent reminder email messages to encourage their completion of the post-test.

Setting and Apparatus

The intervention sites for this study were held at the University of Oregon, Oregon State University, and Western Oregon University campuses. Participants completed the intervention at the their registered university. Participants were asked to remain in the identified location for the duration of the intervention. Each of the intervention programs were held in reserved, private spaces in order to protect the

anonymity of project participants. The breakdown of groups by university is provided in table 2.

Table 2.

Group information

University	Intervention Groups	
	Group Facilitator	Number of Participants
University of Oregon	3	7
Oregon State University	2	6
Western Oregon University	1	7
University of Oregon	1	6
Oregon State University	2	10
Western Oregon University	3	5

Treatment Fidelity

The intervention program consisted of an original curriculum that I designed based on empirical findings and suggestions offered by the research literature (Hurtado, & Carter, 1997; Hurtado, Carter, & Spuler, 1996; Hurtado & PonJuan, 2005; Hernandez 2000, 2002; Gloria, & Rodriguez, 2000; Gloria, Castellanos, Lopez, & Rosales, 2005). Group facilitators of the LEEP program were graduate students from the University of Oregon who identified as Latino/a, Chicano/a, and/or Hispanic descent. Minimum requirements for group facilitators were as follows: (a) attainment of a bachelor's degree in psychology or a field related to human services or psychology and (b) previous group facilitation experience. Group facilitators participated in a one-week long training on the LEEP program that included: (a) an overview of the program's theoretical foundations, (b) practice in implementing the program curriculum, (c) training in the use of group and

individual facilitation and counseling skills, and (d) training in the use of culturally specific facilitation skills (Ivey & Ivey, 2007; Sue, 2003).

I chose to utilize group facilitators of the same racial-ethnic heritage as the participants to facilitate a sense of community and to provide positive Latina university role models for participants (Hernandez, 2000). Santos & Reigados (2005) examined the effects of ethnic-racial homogeneity for Latino/a college students who participated in a year-long faculty-student mentoring program. The researchers specifically examined college adjustment, perceived mentor support, and a program satisfaction measure between ethnic-racially matched and non-matched students. Results indicated that ethnic-racial homogeneity significantly contributed to positive college adjustment, positive perceived mentor support, and positive evaluation of the program. According to the authors, "...having a mentor of their same ethnic background may have been especially important to mentees' personal growth as university students. It can be argued that a Latino mentor was a more salient and identifiable role model for mentees, where similarities in values, expectations, and background enhanced the perceived supportiveness and benefits of the relationship" (p. 47).

Evaluation

During the course of the intervention, participants completed evaluation forms to assess treatment fidelity. Participants were asked to complete the evaluation forms at the end of the intervention program. The evaluation forms allowed participants to rate the group facilitators' (a) understanding of the intervention program content, (b) effectiveness of delivering the intervention program, (c) specific skills as a facilitator, and

(d) general likeability and ability to “connect with” participants. Facilitators debriefed the content and process of the LEEP intervention at the end of each LEEP program administration.

LEEP: The Intervention Program

LEEP was comprised of four key components to facilitate students’ social awareness and adjustment to the university environment. The four components of the intervention program, *Building Community*, *Increasing Critical Consciousness*, *Raising Awareness of Cultural Congruency*, and *Improving the Utilization of Campus Resources* were addressed through the curricula. A more specific description of the program components of LEEP is provided below.

LEEP was intended to facilitate the development of specific constructs that have been identified in the research literature as associated with the retention of Latino/a college students. The *Building Community* section of the intervention specifically focused on the constructs of collective self-esteem and social adjustment to college. This section utilized group discussions and an individual writing activity to facilitate students’ awareness of their own “community” and the importance of building a social network of individuals that support their college demands and experiences.

I utilized the collective self-esteem and student adjustment to college scales to assess change with regard to these constructs. The *Increasing Critical Consciousness* section of the intervention specifically focused on the constructs of critical consciousness of race and higher education and the importance of persistence in college. This section utilized group discussions and individual writing activities to facilitate students’ awareness and

understanding of their experiences as Latino/a college students and how historical and political contexts have set the stage for their current experiences. Further, this section addressed the importance of college retention and completion that is tied to greater needs of the Latino/a community in the United States. I utilized the critical consciousness of race in higher education and collective self-esteem scales to assess change with regard to these constructs. The *Improving Awareness of Cultural Congruency* section of the intervention specifically focused on the constructs of: (a) cultural congruency between home and university values and demands, as well as (b) social adjustment to college. This section utilized group discussions and an individual writing activity to facilitate students' awareness of university culture and demands. I utilized the cultural congruity and student adjustment to college measures to assess change with regard to these constructs. Finally, the *Improving the Utilization of Campus Resources* section of the intervention specifically focused on the construct of utilizing campus resources. A group activity and group discussion facilitated students' awareness of campus resources and their feelings and willingness to seek out services. I utilized the intention to utilize campus resources scale to assess change with regard to this construct. Features and components of the intervention are presented in table 3.

Table 3.

Intervention features and components

Building Community	Increasing Critical Consciousness	Increasing Awareness Cultural Congruency	Improving Utilization Campus Resources
1. Group discussion about the importance of social support networks.	1. Group discussion about the definition of critical consciousness.	1. Group discussion about university climate and culture.	1. Group exercise to identify and develop skills to utilize campus resources.
2. Individual written exercise to identify immediate social networks.	2. Individual written exercise to create personalized definition of critical consciousness.	2. Individual written exercise to identify university and home values and demands.	2. Group exercise to identify various campus resources.
3. Group discussion about students' college experiences.	3. Individual written exercise to explore students' reasons for attending college.	3. Group exercise to identify and develop skills to balance university and home values and demands.	3. Group exercise to model and practice interactions with campus resources.
4. Group discussion about students' experiences with building supportive social networks.	4. Group discussion about college retention and completion.		

Building Community. In a qualitative study by Hernandez (2002), Latino/a students reported that finding a community of their ethnic and racial background at college contributed to their persistence in college. Specifically, participants discussed how seeing other Latino/as on campus provided positive models of students like themselves successfully managing and completing academia. Other Latino/a students helped participants develop positive outlooks on college and feel more connected to their

university environment. Building on Hernandez's study, this section of the intervention program facilitated building a supportive peer community through focused conversations and activities between project participants. Specifically, group facilitators led conversations and activities that cultivated interpersonal connections between participants at the beginning of the intervention.

Mentorship plays a significant role in the academic and social achievement of Latino/a college students (Santos, & Reigados, 2002; Thile & Matt, 2005; Cunningham, Cardenas, Martinez, & Mason, 2006). The LEEP program curriculum therefore provided opportunities to discuss the importance of building mentoring relationships during the *Building Community* section of the intervention program. Formal mentorship was not a component of LEEP. Though mentorship has demonstrated effectiveness for academic and social achievement, it falls outside of the purview of this research study.

The group facilitators provided an introduction that described themselves and their reasons for participating in the intervention program during the first block of the intervention. Next, facilitators described the purpose of LEEP, the four key components of the program, as well as ground rules and guidelines for participation in the intervention program. Following the introduction, students participated in small group activities that were grounded in Ellsworth's (2003) guide to group cohesion with college students. The first activity served to introduce participants to one another and to facilitate an informal environment through "Bingo." Participants completed a bingo card with items that described various characteristics of other group members.

The second activity was an individual writing activity where participants were asked to respond to the following questions: Name five people who comprise “community” for you. How do these people support your success as a college student? The purpose of this activity was to increase students’ awareness of their social surroundings and how the individuals that comprise their “community” interact with their demands as a college student. Participants were provided with 15 minutes to complete this activity.

The final activity for the *Building Community* section was a group discussion regarding students’ experiences in college and the importance of building a supportive community. Specifically, the facilitator began the conversation with her own undergraduate experiences as a Latina college student and how building community impacted her experiences in college. Next, the facilitator directed each participant to describe her/his own experiences to the group. Finally, the facilitator asked participants to respond to each other’s experiences and to find commonalities and similarities within the group.

Increasing Critical Consciousness. The second section of the intervention program focused on critical consciousness. Critical consciousness is the ability to perceive oppression within social, political, and economic realms and to encourage others to take action against oppressive systems (Freire, 1970). During this section of the program, participants discussed the history of Latino/as in American higher education and the importance of college attendance and graduation among this group.

The goal of the *Critical Consciousness* section of LEEP was to facilitate students' persistence in college as a result of political consciousness of race and higher education. Specifically, this section focused on stressing the importance of college completion as a mechanism for supporting the general needs of the Latino/a community within the United States. For example, how the increasing number of Latino/as in the US calls for an increased need of teachers, doctors, lawyers, etc. that are culturally sensitive, bilingual, and able to effectively meet the needs of the growing Latino/a community.

Specific activities for the *Critical Consciousness* section of the intervention program included (a) group discussions regarding the meaning of Critical Consciousness—an examination of the definition and how it applies to participants' lives, (b) individual exercise where students wrote responses to the following questions: What is your personal definition of critical consciousness?, What does critical consciousness mean to you in your life?, (c) group sharing exercise where participants discussed responses to the individual exercise, and (d) a group conversation that addressed the following questions: Is it important for you to be in college and to graduate? How come? Do you feel that graduating from college is important to other Latino/as? How come?

Improving Awareness of Cultural Congruency. The purpose of this section was to develop participants' awareness of the university climate and to build students' skills with balancing home and university demands. Gloria et al. (2005) describes university climate as an atmosphere that reflects White, middle-class, male values and histories. Thus, this section of the program focused on facilitating participants' understanding of the university climate and the similarities and/or differences that they experience between

their university and home environments. Further, this section asked participants to identify mechanisms for balancing their home and university demands in a manner that led to successful retention and completion of college. Thus, the goal of this section was to facilitate students' awareness of their cultural fit with the university and to develop skills that are instrumental in improving academic and social adjustment to college.

Specific activities for the *Critical Consciousness* section of the intervention program included (a) group discussion regarding the meaning of Critical Consciousness—an examination of the definition and how it applies to participants' lives, (b) individual exercise where students wrote responses to the following questions: What is your personal definition of critical consciousness?, What does critical consciousness mean to you in your life?, (c) group sharing exercise where participants discussed responses to the individual exercise, and (d) a group conversation that addressed the following questions: Why is it important to graduate from college? How is your graduating from college important to other Latino/as?

Improving Utilization of Campus Resources. The purpose of this section was to facilitate participants' familiarity and comfort with campus resources. During this section, participants were provided with vignettes of common college experiences and worked in small teams to problem-solve best solutions. Participants were asked to identify campus resources that would aid in the solution of the student problem and to describe their reasons for choosing the identified campus resources. Following the completion of the small group activity, participants came back to the larger group and described their vignette and the identified campus resources they chose to visit. Students

described their process of choosing specific resources versus others. Next, the facilitator led a large group conversation regarding campus resources broken down into four categories: (a) academic support, (b) social support, (c) financial support, and (d) miscellaneous support (includes technology, residency, food, etc.). The facilitator specifically addressed mechanisms for engaging positively with identified resources, i.e. how to speak with a professor, important questions to ask your financial aid advisor, how and when to speak with a counselor.

Measures

Pre-test Measures

I utilized a demographic questionnaire and the Multigroup Ethnic Identity Measure (MEIM; Roberts, et al., 1999; Phinney, 1992) to assess demographic characteristics of the project participants. Descriptions of the measures are provided below (see Table 4).

Table 4.

Intervention constructs as measured by assessments

	Building Community	Critical Consciousness	Cultural Congruency	Campus Resources
Constructs	CSES	CCRHE	CCS	IUCR
Measured	SACQ	CSES	SACQ	

Note: SACQ = Student Adjustment to College Questionnaire; CSES = Collective Self-Esteem Scale; CCS = Cultural Congruency Scale; IUCR = Intention to Utilize Campus Resources; CCRHE = Critical Consciousness of Race and Higher Education.

A simple demographic questionnaire was developed for this study. The questionnaire included questions specific to respondents' age, gender, ethnicity, disability, sexual orientation, nationality, years in the US, generational status, family

composition, parents' education, self- and family income & employment, self-reported college GPA, high school GPA and extracurricular activities. Via a check off list, this questionnaire also asked for permission to review students' university academic records. This measure is presented in the appendix.

The *Multigroup Ethnic Identity Measure* (MEIM; Phinney, 1992) and later revised by Roberts et al. (1999) is a 12 item, 5-point, Likert-type scale (responses ranging from "1-Strongly disagree" to "5-Strongly agree") designed to measure ethnic identity exploration (a process-oriented developmental and cognitive component) and ethnic identity commitment (an affective and attitudinal component). This measure was only used as a pre-test measure since ethnic identity refers to long-term behaviors associated with exploration and commitment to one's ethnic identity. The time between the intervention and post-test assessments was not long enough to produce change with regards to participants' ethnic identity development. Sample items include, "I feel a strong attachment towards my own ethnic group", "I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs", and "I have a clear sense of my ethnic background and what it means for me." The measure has consistently shown good reliability with alphas typically above .80 across a wide range of ethnic groups and ages. Internal consistency reliability of the MEIM for this sample was $\alpha = .78$.

Post-test Measures

The *Student Adaptation to College Questionnaire* (SACQ; Baker & Siryk, 1989) is a 67-item, 7-point, Likert-type scale (responses ranging from "1 – applies very closely

to me” to “7 – doesn’t apply to me at all”) designed to measure four components of adjustment to college: academic, social, personal-emotional, and attachment goal-commitment. For the purpose of this dissertation study, I utilized the social adjustment subscale. Sample items from the Social Adjustment subscale include “I feel that I fit in well as part of the college environment” and “I feel that I am very different from other students at college in ways that I don’t like.” Coefficient alphas for the social adjustment (.88 and .88) subscale reflect an adequate degree of internal consistency for the subscale (Baker & Siryk, 1986). Internal consistency reliability of the SACQ for this sample was $\alpha = .81$.

The *Cultural Congruency Scale* (CCS; Gloria & Robinson-Kurpius, 1996) is a 13-item, 7-point, Likert-type scale (responses ranging from “1-Not at all” to “7-A great deal”) designed to explore students’ experiences of cultural fit between their home and university environments. Sample items are, “I feel I have to change myself to fit in at school”, “My family and school values often conflict”, and “I feel I am leaving my family values behind by going to college”. This measure has shown consistent reliability with a coefficient alpha of .85 with Chicano/a students (Gloria, & Robinson-Kurpius, 1996). Internal consistency reliability of the CCS for this sample was $\alpha = .84$.

The *Collective Self-Esteem Scale* (CSES; Luhtanen and Crocker, 1992) is a 16-item, 7-point, Likert-type scale (responses ranging from “1-Strongly disagree” to “7-Strongly agree”) designed to understand how aspects of the self concept related to race, ethnic background, religion, and feelings of belonging in one’s community, affect self-esteem as a member of a cultural group. The CSES is comprised of four subscales: (a) Private CSE:

Individual's private evaluation of the social group, (b) Public CSE: Individual's beliefs about how others assess their group, (c) Importance to Identity: Degree to which membership in the group is important to the individual's identity, and (d) Membership CSE: Individual's sense of worth as a member of the group. Sample items include, "In general, others think that my racial/ethnic group is unworthy", "I feel good about the race/ethnicity that I belong to", and "Overall, my race/ethnicity has little to do with how I feel about myself." Luhtanen and Crocker report internal consistency reliabilities that range from .71 to .88 for the CSES subscales and a test-retest reliability coefficient of .68 for the total scale. Internal consistency reliability of the CSES for this sample was $\alpha = .55$.

The *Critical Consciousness of Race In Higher Education Scale* (CCRHE, Cerezo & McWhirter, 2007), is a 12 item, 7-point, Likert-type scale (responses ranging from "1-Disagree" to "7-Agree") designed to assess student development regarding socio-political awareness within higher education. Sample items include: "I experience racism in college specifically because I am a Latino/a college student" and "Sometimes I feel that as a Latino/a, I do not belong in college". Internal consistency reliability of the CCRHE for this sample was $\alpha = .78$.

The *Intention to Utilize Campus Resources Scale* (IUCR, Cerezo & McWhirter, 2007), is a 13 item, 7-point, Likert-type scale (responses ranging from "1-Not at all Likely" to "7-Very Likely") designed to measure student willingness to use and comfort with utilizing campus resources. Sample items include: "I will contact or visit the financial aid office if I have questions about my financial situation" and "I will contact or

visit the counseling center if I feel that I need emotional support”. Internal consistency reliability of the IUCR for this sample was $\alpha = .83$.

The *Facilitator Evaluation* (Cerezo, 2007) is a 4 item, 5-point, Likert-type scale (responses ranging from “1-Not at all True” to “5-Completely True”) designed to assess facilitator’s performance on the following items: (a) “My facilitator appeared to know and understand the content of the intervention program”, (b) “My facilitator made the content of the intervention program understandable to me”, (c) “In general, my facilitator demonstrated strong skills as a facilitator”, and (d) “My facilitator was able to “connect” with me and made me feel comfortable as part of my group”.

CHAPTER III

RESULTS

To explore study results I utilized SPSS (version 13.0). I examined histograms and box-plots for normality and distribution of the data. The data were approximately normally distributed. For the Collective Self-Esteem, Cultural Congruity, Critical Consciousness of Race in Higher Education, and Intention to Utilize Campus Resources scales, data were positively skewed. Positive skewness is commensurate with research exploring these measures on similar samples of Latino/a college students (Constantine, Donnelly, & Myers, 2002; Constantine, Robinson, Wilton, & Caldwell, 2002; Gloria, Castellanos, & Orozco, 2005), and will be considered when examining the results of the final multivariate test.

Data Procedures

Analyses examining pre- and post-test variables were conducted using Listwise deletion. As a result, sample size varied across analyses. Only those participants who completed surveys on all variables had their data included in the final analyses. Some participants did not complete the follow-up portion of the study. These data were not included in the final analyses.

The presentation of results is as follows: First, I present data from descriptive analyses that explore key demographic information. Second, I present data from the preliminary analyses of several independent sample t-tests that explore pre-treatment

equivalence of the experimental and control conditions on study measures. Third, I present data from correlation analyses that explore both the relationships among all study variables and the specific relationships between the psychosocial variables related to “awareness” and social adjustment to college. Fourth, I present data from evaluation forms completed by participants to rate LEEP facilitators’ delivery of the intervention. Finally, I present results from a repeated measures multivariate analysis of co-variance (RM-MANCOVA), in which I explore the overall effectiveness of the LEEP intervention on the outcomes measured.

Descriptive Information Findings

The total number of participants who completed pre-test and post-test assessments was $N = 81$, including 40 in the experimental condition and 41 in the control condition. The post-test measurement response rate for the experimental group was 89% (41 of 45 participants) and 69% (41 of 59 participants) for the control condition. G*Power data software (version 3.0.10) was utilized to determine statistical power and effect size for the sample using a .05 alpha. Analyses revealed a .60 power statistic and medium effect size (0.35) for a sample of this size.

Participants were recruited from numerous universities in Oregon and one in Washington. The following percentages of participants from the following universities comprised the sample: 33.3%, ($n = 27$) Oregon State University (16 experimental, 11 control), 23.5% ($n = 19$) University of Oregon (13 experimental, 6 control), 17.3% ($n = 12$) Western Oregon University (12 experimental, 2 control), 12.3% ($n = 10$) Central

Washington University (control only), 12.3% ($n = 10$) Southern Oregon University (control only), and 1.2% ($n = 1$) Oregon Health Sciences University (control only).

Age, Gender, and Ethnicity

The age range for all participants was 18 to 37 years old ($M = 20.54$, $SD = 3.16$). The mean age for the experimental and control conditions was 20.61 ($SD = 2.67$) and 20.47 ($SD = 3.62$), respectively. For all participants, 64% identified as female ($n = 52$), 36% identified as male ($n = 29$). For the experimental group, 72% identified as female ($n = 29$), 28% identified as male ($n = 11$). For the control condition, 56% identified as female ($n = 23$), 44% identified as male ($n = 18$). For the entire group, 86% identified as Latino/Hispanic ($n = 70$), 14% identified as Bi-Racial of mixed Latino/Hispanic descent ($n = 11$). For the experimental group, 83% identified as Latino/Hispanic ($n = 33$), 17% identified as Bi-Racial ($n = 7$). For the control condition, 90% identified as Latino/Hispanic ($n = 37$) and 10% identified as Bi-Racial ($n = 4$). A visual presentation of this information is presented in table 5.

Table 5.

Gender and ethnicity for each group

	Gender		Ethnicity	
	Male	Female	Latino/a	Bi-Racial
Experimental	28% ($n = 11$)	72% ($n = 29$)	83% ($n = 33$)	17% ($n = 7$)
Control Condition	44% ($n = 18$)	56% ($n = 23$)	90% ($n = 37$)	10% ($n = 4$)
Total	36% ($n = 29$)	64% ($n = 52$)	86% ($n = 70$)	14% ($n = 11$)

Citizenship

Students were requested to provide information regarding country of citizenship. The following questions were posed to participants in the demographic questionnaire: “Are you an American citizen?” followed by “In which other countries do you hold national citizenship?” For all participants, 77.8% ($n = 63$) reported having American citizenship, and 22% ($n = 18$) identified their citizenship as being non-American from countries that included Mexico, Costa Rica, Ecuador, Panama, and Germany. For all participants, 21% ($n = 17$) reported dual citizenship with the U.S. and other countries that included Mexico, Chile, and Nicaragua.

Employment

For all participants, 61.7% ($n = 50$) reported being employed while attending school. The mean hours of employment per week for all participants working was 15.37 ($SD = 8.86$), with a range of 2 to 40 hours per week.

Grade Point Average

The mean self-reported college grade point average (GPA) for all students was 3.16 ($SD = .53$), with a range of 1.80 to 4.00. The mean college GPA for the experimental group and control conditions was 3.26 ($SD = .58$) and 3.07 ($SD = .45$), respectively. The mean high school GPA for all students was 3.43 ($SD = .43$), with a range of 2.00 to 4.00. The mean high school GPA for the experimental group and control conditions was 3.41 ($SD = .41$) and 3.46 ($SD = .46$), respectively.

Parents' Educational Background

For all participants, 79% ($n = 64$) were the first in their families to attend college. Mothers' highest educational attainment was: 50.6% ($n = 41$) elementary to middle school, 23.5% ($n = 19$) high school, 11.1% ($n = 9$) some community college, 12.3% ($n = 10$) bachelor's degree, 1.2% ($n = 1$) graduate degree, and 1.2% ($n = 1$) unknown. Fathers' highest educational attainment was: 51.9% ($n = 42$) elementary to middle school, 27.2% ($n = 22$) high school, 8.6% ($n = 7$) bachelor's degree, 3.7% ($n = 3$) graduate degree, and 7.4% ($n = 6$) unknown.

University Involvement

Students were asked to provide information regarding their campus involvement. The following questions were posed to participants in the demographic questionnaire, "Are you involved in student groups, like MEChA or a fraternity?" and "Were you involved in a college orientation program like CAMP (College Assistance Migrant Program), Summer Bridge, or a freshmen leadership program?" For all participants, 66.7% ($n = 54$) reported involvement in student groups and 42% ($n = 34$) reported involvement in a college orientation program. For the experimental group, 45% ($n = 18$) reported involvement in student groups and 24.4% ($n = 10$) reported involvement in a freshman orientation program. For the control condition, 87.8% ($n = 36$) reported involvement in student groups and 60% ($n = 24$) reported involvement in a freshman orientation program. Independent samples t-tests were conducted to assess pre-treatment equivalences between groups with respect to involvement in student groups and a freshman orientation program.

Preliminary Analyses

A series of independent samples t-tests were conducted to examine pre-treatment equivalence of the experimental group ($n = 40$) and control ($n = 41$) condition. Results indicated statistically significant pre-treatment differences for student groups $t(80) = -4.84, p = .00$ and a freshman orientation program $t(80) = 3.05, p = .02$. A deeper analysis of these findings will be provided in the discussion section. Results also indicated no statistically significant pre-treatment differences between the experimental group and control conditions with respect to the Cultural Congruity Scale (CCS) $t(80) = -1.90, p = .48$, and the Social Adjustment to College Questionnaire (SACQ) $t(80) = -2.28, p = .88$. Results indicated significant pre-treatment differences between the experimental group and control conditions with respect to the Collective Self-Esteem Scale (CSES) $t(80) = 2.13, p = .02$, the Intention to Utilize Campus Resources Scale (IUCR) $t(80) = -.84, p = .03$, the Multiethnic Identity Measure (MEIM) $t(80) = 3.91, p < .001$ and the measure of Critical Consciousness of Race in Higher Education (CCRHE) $t(80) = -4.26, p < .001$. The MEIM was only assessed at pre-treatment, and therefore does not have an impact on the final multivariate analysis. Descriptive information for each of the outcome measures is presented in Table 6.

To be clear, I recruited students at different times for the experimental group and control conditions due to the need for increased sample size within the timeframe that I had for running the treatment program. My participant recruitment was conducted in collaboration with the university settings where I was able to help develop interest in the LEEP program among student affairs personnel. Participant recruitment was at a lower

rate than I expected. As such, time constraints and respect for the environments in which I operated the intervention necessitated that I enroll all interested participants first in the experimental group. I subsequently collected control condition data. Apart from this difference in time, the groups would not be expected to differ in any systematic manner given similar recruitment strategies that I used for both the experimental group and control conditions. Nevertheless, the statistically significant differences on the experimental group and control conditions at pre-test will be taken into consideration in interpreting study findings.

Table 6.

Reliability and descriptive information

Measure	α	Combined		Experimental		Control	
		M	SD	M	SD	M	SD
MEIM	.78	4.03	.65	4.27	.44	3.79	.74
CSES	.55	5.23	.58	5.34	.41	5.12	.70
CCS	.84	5.37	1.07	5.10	1.12	5.58	.99
CCRHE	.78	4.41	1.17	4.89	.93	3.94	1.19
IUCR	.83	4.71	1.16	4.60	.97	4.82	1.34
SACQ	.81	2.90	.74	2.69	.69	3.11	.74

Note: MEIM= Multigroup Ethnic Identity Measure; CSES= Collective Self-Esteem Scale; CCS= Cultural Congruency Scale; CCRHE= Critical Consciousness of Race in Higher Education; IUCR= Intention to Utilize Campus Resources; SACQ = Student Adjustment to College Questionnaire.

Facilitator Evaluations

Students ($n = 34$) completed anonymous evaluations at the end of each administration of the LEEP intervention. The evaluation form asked students to rate their facilitator's quality in providing LEEP intervention curriculum according to four items on

a 5-point Likert-type scale from “1-Not at all True” to “5-Completely True”. The overall mean scores for each of the items are as follows: (a) “My facilitator appeared to know and understand the content of the intervention program” ($M = 4.76, SD = .43$), (b) “My facilitator made the content of the intervention understandable to me” ($M = 4.83, SD = .36$), (c) “In general, my facilitator demonstrated strong skills as a facilitator” ($M = 4.76, SD = .43$), and (d) “My facilitator was able to connect with me and made me comfortable as part of my group” ($M = 4.91, SD = .29$).

A series of independent samples t-tests was also conducted to examine equivalence of counselor skills with providing the LEEP intervention. Results indicated statistically significant differences between facilitator one and facilitator two with respect to: (a) providing content of the intervention program $t(25) = -2.68, p = .013$ and, (b) demonstrating skills as a facilitator $t(25) = -2.72, p = .012$. Results also indicated a statistically significant difference between facilitator two and facilitator three with respect to providing content of the intervention program $t(23) = 2.46, p = .022$. In other words, facilitator two received significantly more positive scores with respect to knowledge of the LEEP intervention content and general skills as a facilitator than the other facilitators. These findings are explored in the discussion section of this paper.

Intercorrelations

Correlation analyses were completed for the combined group to assess general relationships between the outcome measures. Correlations were analyzed and are presented for both pre-test and post-test assessment occasions. Results are presented in table 7.

Table 7.

Correlations among measures (N = 81)

Measure	1	2	3	4	5	6
Pre-Treatment						
1. MEIM	--					
2. CSES	.62**	--				
3. CCS	.46	-.03	--			
4. CCRHE	-.09	.09	-.04	--		
5. IUCR	.23*	.26*	.17	.20	--	
6. SACQ	-.40**	-.42**	-.20	.06	-.24*	--
Post-Treatment						
2. CSES	--	--				
3. CCS	--	.37*	--			
4. CCRHE	--	.22	.19	--		
5. IUCR	--	.26*	.26*	.28*	--	
6. SACQ	--	-.13	-.38*	-.13	-.34*	--

Note: MEIM= Multigroup Ethnic Identity Measure (pre-test only); CSES= Collective Self-Esteem Scale; CCS= Cultural Congruency Scale; CCRHE= Critical Consciousness of Race in Higher Education; IUCR= Intention to Utilize Campus Resources; SACQ = Student Adjustment to College Questionnaire. *p< .01; **p< .001

As noted in table 7, a statistically significant positive relationship was observed between collective self-esteem and ethnic identity scores at pre-test and post-test assessments, and between the collective self-esteem and cultural congruence at post-test assessment. A statistically significant positive relationship was also observed between intention to utilize campus resources scores with ethnic identity and collective self-esteem scores at pre-test and post-test, and intention to utilize campus resources scores with cultural congruence scores at post-test. A statistically significant negative relationship was found between intention to utilize campus resources scores with social adjustment to college scores at pre-test and post-test. As theoretically predicted, the

psychosocial variables were also inversely related to social adjustment to college— ethnic identity and collective self-esteem scores were significantly correlated at pre-test, and ethnic identity and cultural congruence scores were significantly correlated at post-test. As discussed in the literature (Reid, 2003), higher levels of “awareness” with respect to ethnic identity, collective self-esteem and cultural congruity result in less positive experiences of the college environment and consequently, lower levels of social adjustment to college.

Multivariate Analysis

A repeated-measures multivariate analysis of co-variance (RM-MANCOVA) was conducted to examine mean differences in outcome measures over time by group. The between-subjects independent variable is group, a dichotomous variable referring to whether participants were part of the treatment condition/experimental group or the no-treatment control condition. The within-subjects, repeated measures, independent variable of time was included to examine whether there were differences on the outcome measures at pre-test/before and post-test/after the LEEP intervention. The covariate was ethnic identity to statistically control for pre-test differences on this construct. The dependent variables were collective self-esteem, cultural congruity, critical consciousness of race in higher education, intention to utilize campus resources, and social adjustment to college.

Multivariate Assumptions

Univariate and multivariate normality was assessed by a visual examination of histograms and bivariate scatterplots. All measures appeared to be normally distributed.

However, a positive skew was observed for collective self-esteem, cultural congruity, critical consciousness of race in higher education, and intention to utilize campus resources at both time periods. This positive skew is in line with previous research (Constantine, Donnelly, & Myers, 2002; Constantine, Robinson, Wilton, & Caldwell, 2002; Gloria, Castellanos, & Orozco, 2005) and may be reflective of participants responding to the questionnaire in a socially desirable manner. Given that these measures play a significant role in the outcome scores, they will be used for the final analysis, but the multivariate results will be interpreted with caution. Mean raw scores were examined to determine the presence of outliers. When analyzing raw means on each of the measures at both time periods, few scores were found to be greater than two standard deviations above the mean. Because all values were within the acceptable range of scores, it appears that scores were not erroneously entered and, therefore, outliers were assumed to be due to chance (Tabachnick & Fidell, 2001). All scores were retained in the final analysis.

Since sphericity was not met according to Mauchley's test for sphericity, I used the Greenhouse-Geiser statistic to test the sphericity assumption by examining whether the variances at each level of the independent variable were statistically different (Kerr, Hall & Kozub, 2002; Grimm & Yarnold, 2000). Results indicate that there were no statistically significant differences in scores on the measures of collective self-esteem, $F(1, 76) = .50, p = .48$, cultural congruity, $F(1,76) = 1.85, p = .18$, critical consciousness of race in higher education, $F(1, 76) = .60, p = .44$, and intention to utilize campus resources, $F(1,76) = .28, p = .60$ across the two time periods. However, there was a

statistically significant difference in social adjustment to college $F(1,76) = 10.94, p < .05$ across the two time periods. Although MANCOVA is quite robust from departures of the sphericity assumption (Grimm & Yarnold, 2000), statistically significant test results related to outcome measures should still be interpreted with caution. To adjust against the increased risk of Type I error, a more stringent α level of $p < .01$ was used for the overall model (Tabachnick and Fidell, 2000; Kerr, Hall, & Kozub, 2002).

The within subjects multivariate results indicated that there were statistically significant differences in mean outcome scores based on the interaction of time by group, Wilks' $\Lambda = .81, F(3, 74) = 3.37, p < .001, \eta^2 = .19$, observed power = .88. These results indicate that the means for the two groups differed significantly from one another depending on time. In other words, scores on social adjustment to college differed significantly between participants in the experimental group and control condition from pre-test to three-week post-test. Because this interaction effect was significant, multivariate main effects of group and time were not examined; instead, the univariate results were examined in terms of the interaction of group by time. In other words, because there were significant findings between participants in the experimental group and control conditions from pre-test to three-week post-test, I examined the specific interaction of group by time for each of the proposed hypotheses. A review of each univariate test is provided below (for means and standard deviations, see table 8).

For *hypothesis one*, “Students who participated in the LEEP intervention would show significantly greater adjustment to college at post-test than students in the control conditions,” a statistically significant difference in mean scores was found, $F(1, 76) =$

10.94, $p = .001$, $\eta^2 = .13$, observed power = .90, indicating that student participation in the LEEP program significantly and positively affected their social adjustment to college. In other words, students in the experimental group showed significantly improved social adjustment to college from pre-test ($M = 2.69$, $SD = .69$) to three-week post-test ($M = 2.80$, $SD = .92$). Obtained scores of participants in the control condition at time 1 ($M = 3.11$, $SD = .74$) were not significantly different from their scores at time 2 ($M = 2.63$, $SD = .98$). This means that students in the experimental group demonstrated statistically significant improvement in social adjustment to college from pre-test to three-week post-test, while students in the control conditions demonstrated a decrease in social adjustment to college from pre-test to three-week post-test. So, it appears that the experimental group improved in social adjustment to college as a result of participating in the LEEP intervention.

For *hypothesis two*, “Students who participated in the LEEP intervention would show significantly greater improvements on a measure of intention to utilize campus resources at post-test than students in the control conditions,” a statistically significant difference in mean scores between the experimental group and control conditions was not found, $F(1, 76) = .28$ $p = .60$, $\eta^2 = .004$. This means that the LEEP intervention did not significantly improve students’ intention to use campus resources in comparison with the control conditions.

For *hypothesis three*, “Students who participated in the LEEP intervention would show significantly greater improvements on a measure of collective self-esteem at post-test than students in the control conditions,” a statistically significant difference in mean

scores between the experimental group and control conditions was not found, $F(1, 76) = .50, p = .48, \eta^2 = .007$. This means that the LEEP intervention did not significantly improve students' collective self-esteem in comparison with the control conditions.

For *hypothesis four*, "Students who participated in the LEEP intervention would show significantly greater improvements on a measure of cultural congruency at post-test than students in the control conditions," a statistically significant difference in mean scores between the experimental group and control conditions was not found, $F(1, 76) = 1.85, p = .18, \eta^2 = .02$. This means that the LEEP intervention did not significantly improve students' cultural congruency in comparison with the control conditions.

For *hypothesis five*, "Students who participated in the LEEP intervention would show significantly greater improvements on a measure of critical consciousness of race in higher education at post-test than students in the control conditions," a statistically significant difference in mean scores between the experimental group and control conditions was not found, $F(1, 76) = .60, p = .44, \eta^2 = .008$. This means that the LEEP intervention did not significantly improve students' critical consciousness of race in higher education in comparison with the control conditions.

Table 8.

Pre-/Post-test means and standard deviations for dependent variables

	Experimental		Control	
	Pre-	Post-	Pre-	Post-
CSES	5.34 (<i>SD</i> = .41)	5.34 (<i>SD</i> = .61)	5.12 (<i>SD</i> = .70)	5.22 (<i>SD</i> = .88)
CCS	5.10 (<i>SD</i> = 1.12)	4.77 (<i>SD</i> = .91)	5.58 (<i>SD</i> = .99)	5.17 (<i>SD</i> = 1.29)
CCRHE	4.89 (<i>SD</i> = .93)	3.33 (<i>SD</i> = 1.14)	3.94 (<i>SD</i> = 1.19)	4.17 (<i>SD</i> = 1.03)
SACQ	2.69 (<i>SD</i> = .69)	2.80 (<i>SD</i> = .92)	3.11 (<i>SD</i> = .74)	2.61 (<i>SD</i> = .97)

CSES= Collective Self-Esteem Scale; CCS= Cultural Congruency Scale; CCRHE= Critical Consciousness of Race in Higher Education; IUCR= Intention to Utilize Campus Resources; SACQ = Student Adjustment to College Questionnaire.

Results from the multivariate analysis demonstrate that the LEEP intervention was effective in improving social adjustment to college for students who participated in the program. The LEEP intervention was not found to have statistically significant effects in improving collective self-esteem, cultural congruity, intention to utilize campus resources, and critical consciousness of race in higher education in comparison with students in the control conditions. A more in-depth examination of the results is provided in the discussion, especially in light of pre-treatment differences between the two groups which may help to explain what appears on the surface to be a lack of treatment effect on many of the outcome variables for the LEEP intervention.

CHAPTER IV

DISCUSSION

The purpose of this study was to examine the effectiveness of an intervention program designed to improve social awareness and adjustment to college for Latino/a college students. In summary, findings demonstrated that students who completed the LEEP intervention demonstrated significant improvement in social adjustment to college from pre-test to three-week post-test in comparison to students in the no-treatment control conditions, who actually demonstrated a decrease in social adjustment to college from pre-test to three-week post-test. Results further demonstrated that students who completed the LEEP intervention did not significantly differ from control condition students at three-week post-test on measures of intention to utilize campus resources, and on the more enduring and stable characteristics of collective self-esteem, cultural congruity, or critical consciousness of race in higher education. In this chapter I discuss these and related results along with pertinent participant and facilitator feedback about the intervention, the strengths and limitations of the study, and, finally, implications for future research and clinical practice in this area.

The LEEP intervention was theoretically grounded in the Ecological Model of human development (Bronfenbrenner, 1979; 1989) and Critical Race Theory (CRT; Villalpando, 1994). The Ecological Model asserts that human behavior always occurs within a context and that these contexts must be considered if behaviors, cognitions, and emotions are to be understood. In educational practice, CRT is a framework that

emphasizes the importance of viewing educational policies and policy making within a historical and cultural context as well as analyzing racial exclusion and other forms of discrimination against college students. The five key features of CRT were applied within the LEEP intervention: (a) the centrality of examining race and racism within university structures, practices, and discourse, (b) the challenge to dominant ideology, (c) a commitment to social justice and praxis, (d) a centrality of experiential knowledge from people of color, and (e) an historical context and interdisciplinary perspective. By utilizing the Ecological Model and CRT as driving theoretical forces, the LEEP intervention facilitated critical thinking about experiences of being Latino/a in American higher education and the importance of retention and graduation for further progress of the Latino/a population within the United States.

Social Adjustment to College

As hypothesized, social adjustment to college scores significantly improved for participants who completed the LEEP intervention. This finding suggests that participants who completed the LEEP intervention felt more socially adjusted to, comfortable within, and efficacious in managing their college environment after completing the LEEP intervention. Given that college adjustment is strongly associated with college success (Johnson et al., 2008), this finding is particularly relevant and supportive of the overall utility of LEEP as a successful intervention for Latino/a college students. Kenny & Perez (1996) suggest that a sense of belonging with one's chosen networks is connected to psychological, emotional, and social well-being and academic success. So, while the lack

of significant findings of the effectiveness of LEEP on other outcome measures is as yet unclear, this finding illustrates at least partially the benefits of LEEP.

Social adjustment to college scores also decreased from pre-test to three-week post-test for non-LEEP intervention participants. This finding is also interesting and may be related to a couple of issues. First, control condition participants were more likely to be involved in ethnic-based student organizations (87.8%) in comparison with the experimental group (45%). Second, control condition participants' scores on "awareness" measures of collective self-esteem, cultural congruity, and critical consciousness of race in higher education were positively skewed, demonstrating an already highly present sense of identity with respect to these measures. One hypothesis for this result may be a measurement effect—that is that the pre-test measures facilitated a keener sense of awareness and critique of the university environment, which then resulted in a lower sense of social adjustment to college at three-week post-test. Unlike students who completed the LEEP intervention, control condition participants may have gained awareness through interacting with measurement, but did not have an outlet to explore and better understand the impact of this increased awareness and consciousness on their college experiences. LEEP participants, on the other hand, explored social awareness and *also* worked with peers to articulate their own experiences, learn from others, and gain motivation to socially adjust to their college environment by building and strengthening interpersonal connections with other Latino/as on campus. Because previous research on social adjustment to college has not explored critical consciousness, it is difficult to gauge the convergence and/or divergence of these findings with those of previous research.

It is likely that the *Building Community* component of the LEEP intervention worked directly toward improving participants' social adjustment to college as this was the component most theoretically related to college adjustment. For building community, students were asked to complete a writing activity and to share their responses with the larger group. Examples included: *Name five people who comprise "community" for you. How do these people support your success as a college student?* The purpose of this activity was to increase students' awareness of their social surroundings and how their "community" impacts their college responsibilities. In addition to discussing the importance of building community, students completed exercises that were geared toward improving social connections with peers in the LEEP intervention such as an icebreaker that required participant interaction and personal sharing. Based on anecdotal evidence, several participants of the LEEP intervention began attending ethnic-based student organizations because other group members recruited them during the LEEP program, and in large part during the community building activities. Thus, students were able to think about, discuss, and practice building community as a response to their participation in the LEEP intervention.

Social Awareness Measures

Results demonstrated no statistically significant differences in student scores on collective self-esteem, cultural congruity, critical consciousness of race in higher education, or intention to utilize campus resources between the experimental group and control conditions at post-test. Although specific components of the intervention were targeted to improve these constructs, LEEP participants generally already had high levels

of each of these constructs at pre-treatment (collective self-esteem $M = 5.34$; $SD = .41$, cultural congruity $M = 5.10$; $SD = 1.12$, critical consciousness of race in higher education $M = 4.89$; $SD = .93$, and intention to utilize campus resources $M = 4.60$; $SD = .97$, maximum score is 7.0 for all measures). Because each of the scores were positively skewed, finding an intervention effect was much more challenging. It is possible that with greater power, and the commensurate ability to detect small effect sizes, I may have been able to detect the small intervention effects that may have existed, but the overall N (40-experimental group, 41 control conditions) in this study permitted me to only detect a medium effect size (.35).

Collective Self-Esteem & Cultural Congruity

Although the measure of collective self-esteem has shown internal consistent reliability that ranges from .71-.88 in previous research (Luhtanen and Crocker, 1992), the internal consistently reliability for this measure for the present sample was .55 (with test-retest reliability at .72). It is unclear what may have impacted the relatively poor internal consistency reliability for this measure in the present sample. It may be that Latino/a students in the Pacific Northwest may have a differing conceptualization of the nature of collective self-esteem in comparison with other Latino/a samples that have completed this measure. A review of the literature regarding collective self-esteem reveals no data related to this construct that has been gathered on students of color in a predominately White region, much like the Pacific Northwest, nor in the Pacific Northwest specifically (Ervin, 2001). Thus, the collective self-esteem measure may not accurately or may poorly assess collective self-esteem with the present sample.

The LEEP intervention specifically targeted the construct of cultural congruency and collective self-esteem within the *Improving Awareness of Cultural Congruency* section of the intervention, whose purpose was to facilitate participants' understanding of the university climate and to develop skills for improving balance between university and home demands. For the present sample, the LEEP intervention specifically discussed the importance of understanding unique values and demands that are affirmed at a predominately White university. Many students discussed challenges with growing up in a rural, predominately Latino/a and immigrant community and how transitioning to university included a significant shift in social class and accompanying resources, language barriers, and differing ways of interacting with peers and family. A specific example written by one student demonstrates the complexity of negotiating relationships:

There [are] people that come to college and it's their life, but I go home a lot and talk to my family all the time, so its hard to be a part of the group in my dorm.

Although results indicated no statistically significant difference in cultural congruity as related to participation in the LEEP intervention, an increase in average scores between times one ($M = 4.70$; $SD = 1.22$) and two ($M = 4.78$; $SD = .93$) on the cultural congruity scale for the experimental group demonstrate some level of change among participants. This is an important consideration given that previous research has found a positive association between cultural congruity and self-esteem and social support (Constantine, Robinson, Wilton, & Caldwell, 2002), all of which may be useful in informing future potential interventions.

Critical Consciousness & Intention to Utilize Campus Resources

While findings were not significant, the *Increasing Critical Consciousness* component of the LEEP intervention was intended to facilitate students' political consciousness of race and higher education by stressing the importance of college completion as a mechanism for supporting the general needs of the Latino/a community within the United States. Specific activities included group discussions regarding the meaning of critical consciousness—an examination of the definition and how it applies to participants' lives, (b) a written exercise where students wrote responses to the following questions: *What is your personal definition of critical consciousness?*, *What does critical consciousness mean to you in your life?*, (c) and a group sharing exercise where participants discussed the importance of college completion. The written responses below demonstrates participants' growing awareness of this construct and the impact of college completion on the larger U.S. Latino/a population, in spite of non-significant findings:

Participant 1: Realizing that you are breaking the cycle by getting an education. You are defying the 'norm' by attending 'a predominately white post secondary institution.' That is a big chance that some people dream about but too few get. I am one of the lucky ones.

Participant 2: Knowing where you come from through [the] past allows you to see what is happening in society to our gente. How we can use this information to instill in others the importance [of completing college].

Results of the LEEP intervention on improving critical consciousness may have also been affected by measurement issues. The critical consciousness of race in higher education measure was not previously tested or normed on a large and diverse sample,

although internal consistency reliability of this measure on this sample (.78) was respectable. It is therefore difficult to know the extent to which the measure fully measured critical consciousness and the unique experiences related to Latino/a college students in the Pacific Northwest.

The *Improving Utilization of Campus Resources* component of the LEEP intervention was intended to facilitate improved utilization of various campus resources with the purpose of highlighting the connection between accessing resources and successful completion of college. Participants were provided with vignettes of common college experiences and worked in small teams to problem-solve best solutions. Two vignettes were used during the intervention that covered substance use, negotiating family and peer demands, and asserting one's values and needs during romantic relationships. Given the already high intention to use campus services, such intervention components may have been too diffuse to be perceived by participants as specifically relevant to campus resource utilization.

Student Feedback

Participants completed anonymous evaluations of their LEEP intervention facilitator at the end of each run of the program. The evaluation asked students to rate their facilitator on the following four questions: (a) *My facilitator appeared to know and understand the content of the intervention program*, (b) *My facilitator made the content of the intervention program understandable to me*, (c) *In general, my facilitator demonstrated strong skills as a facilitator*, and (d) *My facilitator was able to "connect" with me and made me feel comfortable as part of the group*. Thirty-four of the forty-five

experimental group participants completed the evaluation form. A couple of excerpts from the evaluation form are provided below:

Participant 1: I just wanted to say that it was great to meet people like you guys...thanks for the big difference you made on me.

Participant 2: Facilitator was able to connect with us as a Latina, student, and person.

Participants provided overwhelmingly positive feedback of the program and facilitators (maximum score of 5): (a) *My facilitator appeared to know and understand the content of the intervention program* ($M = 4.76$; $SD = .43$), (b) *My facilitator made the content of the intervention understandable to me* ($M = 4.83$; $SD = .36$), (c) *In general, my facilitator demonstrated strong skills as a facilitator* ($M = 4.76$; $SD = .43$), and (d) *My facilitator was able to connect with me and made me comfortable as part of my group* ($M = 4.91$; $SD = .29$). Many students expressed regret that more students were not present and that many of their peers would greatly benefit from such a program. Since two programs were provided at each university campus, students from the first cohorts consistently recruited peers for the second run of the program and went as far as to voluntarily arrive (no prompting) at the intervention location to assist with transportation and logistics.

Strengths and Limitations

Strengths

This study had a number of strengths. A key strength of this study was the naturalistic and diverse sample of participants. Students were recruited in various methods that included general list-serves and flyers, through residential life, key diversity

staff, student organizations and word of mouth. As such, students represented rich diversity with respect to gender, citizenship, parents' educational background, and geographic location in the Pacific Northwest within the confines (and value) of conducting the study at three universities. Though participants' involvement in student organizations was greater than expected, it was not particularly surprising given the nature of the intervention – which would draw students with strong interest in Latino/a student issues on college campuses. The email and flyer recruitment called for self-selection by participants based on connection with Latino/a identity and interest in participating in a program based on that identity.

Second, the ethnic match of the facilitators to participants was a strength of the intervention. As noted in previous research (Santos & Reigadas, 2002), I recruited facilitators that were of Latino/a descent and felt comfortable speaking Spanish. Ethnic match was important toward creating a sense of community and providing participants with models of academic success. Participants discussed their connection with the facilitators and the importance of seeing Latino/a students in graduate school that were connected to their community. During breaks and following the intervention, several participants requested information about graduate school and the application process. In one instance, a participant phoned me to ask about my opinion regarding a proposed Arizona law outlawing ethnic-based student organizations. Thus, ethnic match was helpful in developing trust and strong interpersonal connections with participants.

Third, the intervention was a standardized curriculum that can easily be replicated for use with other Latinos/as as well as with other student groups on college campuses. A

standardized curriculum is an important feature because it allows for straightforward dissemination and is therefore accessible to a wide range of university campuses. Further, it provides for the opportunity to replicate the study with a diverse sample of Latino/a students and thereby strengthens the intervention because it allows for greater measurement and opportunities for improvement or augmentation as needed.

Fourth, the intervention was theoretically consistent and tied to theoretical and practical interventions in a manner that was new and hopefully, innovative. The intervention hopefully will inform future research and practice not only on intervention components but also on how to link and integrate theoretical constructs (such as CRT) with practical skills (such as learning how to interact with campus resource personnel). Students noted the importance of learning about the history of Latino/as in higher education and that this knowledge helped contextualize their current experiences. A few participants also described the importance of thinking critically about university culture and some of the challenges they face with balancing home and university demands. Students said the *Cultural Congruency* component of the intervention made it easier to articulate their own challenges and that it was helpful to hear from peers because it normalized their experiences.

Fifth, Latino/a college students are a highly underserved population and LEEP therefore has the strong potential of informing student affairs practice. When debriefing the LEEP intervention, the facilitators described the challenges they experienced with hearing about participants' struggles in university. For instance, when participants discussed their own experiences of prejudice and discrimination as well as some of the

significant academic and financial challenges that they experienced from being Latino/a, sometimes immigrant, and often the first in their families to attend college. The facilitators reported that in some administrations of the program, student participants would speak Spanish during emotional sharing and would communicate with peers and the facilitators in Spanish as a way to connect at a deeper level. In line with our goal of building community among participants, facilitators observed several students being recruited for membership in ethnic-based student organizations by other student participants. For example, one student who completed the program in spring was encouraged by fellow participants to take on leadership responsibilities in MEChA the following fall quarter. The student is now an active member of the organization. Thus, the LEEP intervention was effective in providing a resource to Latino/a college students to discuss their challenges in university, build interpersonal connections with peers, and develop skills to more successfully navigate their university campus.

Limitations

The limitations of the present study are related to sample selection and commensurate lack of random assignment, sample size and statistical power, counselor effects, and to some degree measurement reliability (see Cook & Campbell, 1979).

Intervention length will also be discussed as a possible limitation.

Self-selection by participants based on connection with Latino/a identity and interest in participating in a program based on that identity, while a strength, was also a limitation. When I originally constructed the program my goal was to recruit heavily from residential life and to intervene with underclass students and students not involved

in student organizations. My goal was to offer students a skill set to critically analyze their experiences as a Latino/a in the university, develop relationships with Latino/a peers, and to improve utilization of campus resources. However, students from the targeted group did not voluntarily seek out the program in spite of extensive efforts to recruit these early-career college students. Rather, students with a high degree of social awareness, many of whom were members of ethnic-based student organizations, volunteered to complete the LEEP intervention. Many likely did this in order to continue their exploration of race and ethnicity within higher education. Thus, the LEEP intervention was not carried out with the original target student population (e.g., Latino/a underclass students in university residential life dorm). So, results cannot be generalized to early-career students from whom the intervention was originally designed.

Non-randomization of participants was another limitation of this study. As a quasi-experimental research study, there was not an assumed pre-test equivalency between the experimental group and control conditions. Results from a series of independent samples t-tests found that groups were not equivalent in their participation on a number of items that included participation in ethnic-based student organizations (45% - experimental group, 24.4% -control conditions), and the social awareness measures of collective self-esteem, intention to utilize campus resources, and ethnic identity. Lack of non-equivalency at pre-test on these items posed a significant challenge in that we cannot say with certainty that it was the LEEP intervention itself or group differences that accounted for the final results of the multivariate analysis.

Another limitation of this study was the diminished statistical power from lower overall sample size than would have been ideal to determine small treatment effects. It is possible that greater overall N, and commensurately higher statistical power, would have allowed me to detect change/growth in the measured constructs with the present sample. As it is, future research should replicate this intervention with a much larger number of young Latino/a college students in a range of settings to fully evaluate its potential as an effective intervention aimed at improving Latino/s student success on university campuses.

Counselor effects were another limitation of this study. Students were asked to provide anonymous evaluations of their facilitator at the end of each run of the LEEP intervention. Of the items evaluated, statistically significant counselor differences were found for *My facilitator appeared to know and understand the content of the intervention program* and *In general, my facilitator demonstrated strong skills as a facilitator*. Facilitator two outperformed facilitators one and three on each of these items. The potential impact of these differences is that we cannot say with certainty that the LEEP intervention made a significant impact on participants with respect to social awareness and adjustment apart from the effect of the counselor herself. Results suggest that mean scores improved on social awareness and adjustment for all participants in the LEEP intervention, however, including the two-thirds of participants that completed the intervention with facilitators one and three.

Measurement may have also been a limitation of this study. Internal consistency reliability for the collective self-esteem scale ($\alpha = .55$) was below reliability estimates

from previous research studies. Low reliability for the collective self-esteem scale may have hindered our ability to detect treatment effects on this construct. Another challenge with measurement was the employment of two previously unused measures: critical consciousness of race in higher education ($\alpha = .78$) and intention to utilize campus resources ($\alpha = .83$). Although internal consistency reliability for each measure was strong, validity is another issue as it is unknown whether these scales fully captured the intended constructs. So, while these measures were constructed to be completely consistent with Critical Race Theory and reviewed by professionals versed in CRT and student affairs research, the findings from this study with respect to critical consciousness of race in higher education and intention to utilize campus resources should be interpreted with caution when considering the inclusion of these constructs in interventions with other samples.

Finally, the relatively brief length of the intervention, and the fact that it was conducted in only one day may have limited treatment effects. Participants may not have had sufficient time to discuss and integrate the application of LEEP materials. The original proposed length of the study was two days, with two intervention components presented on each day. A few complications arose with the original intervention length of two days that included cost of room reservations, fears of attrition from day one to day two, and cost of gasoline and food for participants and facilitators. Because of costs, university staff requested that the program be condensed to one day.

Implications for Research

Future intervention research should consider the strengths and limitations of the current study. In particular, future research should implement similar interventions with a large, diverse randomized sample to ensure treatment effects across a broad range of Latino/a college students. Future research should also account for counselor effects, and like the present study, provide a standardized curriculum to ensure treatment fidelity and the impact of the intervention itself on the intended goals. Further, future intervention research should consider ethnic-match for improved sense of belonging, connection, and social adjustment to college for participants. Finally, measurement and length of treatment should be considered. Measurements should be repeated across a diverse sample of Latino/a college students to ensure the intended constructs are accurately captured. When possible, length of treatment should be extended to improve potential treatment effects and to provide participants with sufficient time to discuss and integrate the material provided in the intervention.

Additionally, evaluated interventions might be considered at the university structure and systems level, such as providing widespread orientations for Latino/a college students related to the constructs considered in LEEP, providing and evaluating a class for academic credit related to similar issues, sponsoring and evaluating programs specifically for campus residents, and providing and examining the effects of a summer leadership program for incoming and returning Latino/a and other traditionally underrepresented and underserved students.

In line with the findings of this present study, future researchers should examine the range of developmental reactions that occurs with increasing one's social awareness, and design and implement measurement, including assessment of long-term gains, retention, and college success, that effectively explores the growth that is typical with the development of increased critical consciousness. For the present study, it is possible that students' higher scores on measures of social awareness indicate a more realistic evaluation of the university environment. This may be because students are able to shift blame from themselves to the university setting when experiencing the negative effects of a lack of cultural fit. This finding is especially important for students who attend predominately White universities where cultural values and traditions may be less challenged because of a smaller numerical representation of students of color.

An important variable for future intervention research is the importance of peer support for students' social awareness and adjustment to college. Though the present study included a *Building Community* component, future programs can add a unique interpersonal module like a buddy or mentoring system so that students are given additional avenues for connection and practice of interpersonal skills. Future research should then include measures that directly examine peer support in order to better assess students' social support networks, their impact on adjustment to college, and the efficacy of utilizing peer mentors as a retention mechanism.

Implications for Practice

This study demonstrated the importance of building a peer support network that is cognizant of the unique challenges faced by Latino/as in university. The *Building*

Community and *Cultural Congruency* components of the program specifically targeted the importance of building a support network and were found to have improved students' social adjustment to the college environment. In line with these findings, counselors can assist students in developing such community by encouraging them to join ethnic-based student organizations. Each of the universities that participated in the LEEP intervention had at least one of the following on-going groups: MEChA, SHP (Society of Hispanics in Engineering), Latino/a sororities and fraternities, and CAMP (College Assistance Migrant Program). Thus, there are many opportunities for students to engage with Latino/a peers who are focused on social support, academic success, and retention in higher education.

In line with the results, I hypothesize that the LEEP intervention made a positive impact on students' social adjustment to college due to the clinical application of Critical Race Theory (CRT). The specific component of CRT that was theoretically connected to social adjustment to college was the centrality of experiential knowledge from people of color. This component was especially important within the *Building Community* section of the intervention because students' were encouraged to utilize peer support as a method to navigate university culture and to build a positive support network that would encourage their academic success. Thus, counselors can implement CRT, specifically the centrality of experiential knowledge from people of color, in assisting students to find a positive, social support network that will improve adjustment to college and consequent retention and graduation from university.

Summary and Conclusions

Since the number of Latinos enrolling in four-year universities and attaining college degrees remains proportionally low in comparison with European Americans (U.S. Bureau of the Census, 2003), it is a social imperative that researchers develop, implement, and effectively evaluate programs that improve the retention and graduation of Latino/a students in the United States. Researchers have found that social adjustment to college is linked to feelings of self-efficacy and academic persistence attitudes for this population (Gloria, Castellanos, Lopez, & Rosales, 2005). In response to the literature, I developed the LEEP intervention to facilitate social awareness of being Latino/a in university and to improve social adjustment to college through four key components: (a) building a supportive peer network/community, (b) increasing critical consciousness of being Latino/a in university, (c) increasing awareness of cultural congruency between home and university environments, and (d) improving utilization of campus resources.

Previous to this study there has been no research on interventions specifically targeted on improving social awareness and adjustment to college for Latino/a students. It was therefore important to develop a program that focused on social awareness and adjustment to college since these processes are connected to Latino/a student success (Reid, 2003; Gloria, Castellanos, Lopez, & Rosales, 2005). Though results from this study demonstrated statistically significant improvement only in social adjustment to college and no statistically significant results for improved social awareness on measures of collective self-esteem, cultural congruity, and critical consciousness of race in higher education for program participants, the LEEP intervention provides a model by which to

incorporate a practical application of Critical Race Theory in future interventions for future investigations. As such, future research and practice can benefit from examining and adopting particular components of the LEEP intervention for Latino/a college student retention. The current investigation should help future researchers toward that end.

APPENDIX A

CURRICULUM

Block 1: Building Community

This activity is to be completed during Day 1, Block 1

Introduction, 45 Minutes

- Introduce yourself
- Describe your interest in being involved with the project
- Describe the purpose of LEEP and what students can expect for today and tomorrow
- Discuss ground rules and guidelines for being involved
- Participant introduction: name, where your from, and what you hope to get from the intervention

Game, 20 Minutes

“The purpose of this activity is for us to have fun as we get to know one another.

- Each of us will grab a bingo card
- We will circulate to find group members who match descriptions in the bingo squares
- When a match is found, write the name of the individual in the square. Different names must be used in each square
- When you have filled a row with names, yell "Bingo!"
- With the group, check the squares and identify the individuals who fill your card. Share your answers with the group
- Each group member will discuss the answers s/he gathered.

Building Group Cohesion, 40 Minutes

Verbal script of directions: The purpose of this activity is for us to get better acquainted and to feel comfortable sharing with our group. The name of this activity is, *If You Knew Me*. Each of us will begin a sentence saying, “If you knew me, you would know that...”. For example, I would say, “If you knew me, you would know that I am a graduate student at the University of Oregon” or, “If you knew me, you would know that I identify as...”. Okay, now each of us is going to practice saying one of these sentences to the group. Okay, now that we’ve practiced, each of us will take a turn saying seven of these sentences in a row to the group. Pay attention. When everyone is done, each of us will

say one thing about each of our group members that they shared with us. No writing notes! Make sure you listen carefully so that you can remember one thing about each of your group members!

Group Discussion: The importance of Building Community, 35 Minutes

Facilitate a conversation that addresses the following topics:

- What is community
- Why is it important to have community
- How can having a community support our college experiences

Block 2: Critical Consciousness

This activity is to be completed during Day 1, Block 2

Group Activity, 45 Minutes

Directions:

- Pass around the definition of critical consciousness
- Read it aloud to the group
- Ask group members to read the definition to themselves in silence
- Initiate a group conversation about the definition and how this applies to group members' experiences as Latino/a college students

If necessary, describe your process with this definition and what it means in your

life

- Present general historical and political trends of Latinos in the United States
- Present higher education trends of Latinos in the United States

Individual Activity, 15 Minutes

Participants are given 15 minutes to write down the following:

- What is your personal definition of critical consciousness?
- What does critical consciousness mean to you in your life?

Group Activity: Sharing, 60 Minutes

- Each group member shares with the group at least one answer to the questions in the individual activity.
- Group members identify similarities and differences in their experiences and/or definitions.
- Questions posed to group:
 - Is it important for you to be in college and to graduate? How come?*
 - Do you feel that graduating from college is important to other Latino/as?*
 - How come?*

Block 3: Cultural Congruency

This activity is to be completed Day 2, Block 3

Group Activity, 45 Minutes

- Facilitator will lead a discussion regarding university climate and culture and how students experience their university as Latino/a students.
- Facilitator will present information about university climate and culture and what has been found in the research literature regarding students of color.
- Facilitator will address how some students may experience similarities and/or differences between their home and university climates.

Individual Activity, 15 Minutes

Participants are given 15 minutes to write down the following:

- What is your personal definition of university climate and culture?
- What is your personal definition of your Latino/a home and/or community culture?
- Can you identify similarities and/or differences between university and home culture in your life?

Group Sharing Activity

- Each group member shares with the group at least one answer to the questions in the individual activity.
- Group members identify similarities and differences in their experiences and/or definitions.
- Questions posed to group:
 - How does university climate affect your experiences as a Latino/a student?*
 - How do you balance home and university demands?*

Block 4: Utilizing Campus Resources

This activity is to be completed Day 2, Block 4

Group Activity, 45 Minutes

Verbal directions: During this section, you will be provided with vignettes of common college experiences and work in small teams to problem-solve best solutions. You will identify campus resources that will aid in the solution of the student problem.

Okay, now we will come back to the larger group and describe our vignettes and the campus resources we chose for our student problems.

Group Activity, 45 Minutes

- Facilitator will lead a discussion regarding various student needs.
- Facilitator will present information about various forms of support that include:
 - Academic support
 - Social support
 - Financial support
 - Miscellaneous support (technology, residency, employment).

Group Activity, 30 Minutes

- Facilitator will present mechanisms for engaging positively with identified resources:
 - How to speak with a professor
 - Important questions to ask your financial aid advisor
 - How and when to speak with a counselor.

APPENDIX B

MEASURES

Demographic Questionnaire

What is your age? _____

What is your ethnicity? _____

What is your gender? _____

Do you identify as having a disability? __ Yes __ No

Please identify your disability: _____

What is your sexual orientation? _____

Are you an American citizen? __ Yes __ No

In which other countries do you hold national citizenship? _____

How many years have you lived in the US? _____

Where was your mother born? _____

Where was your father born? _____

What is the highest level of education attained by your mother? _____

What is the highest level of education attained by your father? _____

Are you employed? __ Yes __ No

What do you do for work? _____

How many hours per week do you work? _____

Is your mother employed? __ Yes __ No

What does she do for work? _____

Is your father employed? __ Yes __ No

What does he do for work? _____

What is your college GPA? _____

What was your high school GPA? _____

Are you involved in student groups, like MEChA or a fraternity? __ Yes __ No

Please list: _____

Are you involved in a college orientation program? __ Yes __ No

Please describe: _____

Student Adaptation to College Questionnaire (Luhtanen & Crocker, 1992)
Social Adjustment Subscale

Directions: The statements in this questionnaire describe experiences of college that may or may not apply to you. Read each statement carefully and decide how well it applies to you *at the present time* (within the past few days). Choose the point in the continuum for that item that best represents your judgment, from 1 “Applies very closely to me” to 7 “Doesn’t apply to me at all”

	Applies very closely to me				Doesn't Apply to me at all		
	←				→		
I feel that I fit in well as part of the college environment.	1	2	3	4	5	6	7
I am meeting as many people, and making as many friends, as I would like at college.	1	2	3	4	5	6	7
I am very involved with social activities in college.	1	2	3	4	5	6	7
I am adjusting well to college.	1	2	3	4	5	6	7
I have had informal, personal contact with college professors.	1	2	3	4	5	6	7
I am pleased now about my decision to attend this college in particular.	1	2	3	4	5	6	7
I have several close social ties at college.	1	2	3	4	5	6	7
Lonesomeness for home is a source of difficulty for me now.	1	2	3	4	5	6	7
I enjoy living in university housing (please skip if this does not apply to you).	1	2	3	4	5	6	7

	Applies very closely to me				Doesn't Apply to me at all		
	←				→		
I am satisfied with the extracurricular activities available at college.	1	2	3	4	5	6	7
I am getting along very well with my roommate(s) at college (please skip if this does not apply to you).	1	2	3	4	5	6	7
I feel that I have enough social skills to get along well in the college setting.	1	2	3	4	5	6	7
I am having difficulty feeling at ease with other people at college.	1	2	3	4	5	6	7
I am satisfied with the extent to which I am participating in social activities at college.	1	2	3	4	5	6	7
I have been feeling lonely a lot at college lately.	1	2	3	4	5	6	7
I feel I am very different from other students at college in ways that I don't like.	1	2	3	4	5	6	7
On balance, I would rather be at home than here.	1	2	3	4	5	6	7
I have some good friends or acquaintances at college with whom I can about any problems I may have.	1	2	3	4	5	6	7
I am quite satisfied with my social life at college.	1	2	3	4	5	6	7

Cultural Congruency Scale (Gloria, & Robinson-Kurpius, 1996)

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 family 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 I belong on this campus.
- ___ 13. I can talk to my family about my struggles and concerns at school.

Multigroup Ethnic Identity Measure (Roberts et al., 1999)

In this country, people come from many different countries and cultures, and there are many different words to describe the different backgrounds or *ethnic groups* that people come from. Some examples of ethnic groups are Latino, African American, Mexican, Asian American, Chinese, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it.

Please fill in: In terms of ethnic group, I consider myself to be _____
Use the numbers below to indicate how much you agree or disagree with each statement.

(5) Strongly agree (4) Agree (3) Neutral (2) Disagree (1) Strongly disagree

- 1- I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs.
- 2- I am active in organizations or social groups that include mostly members of my own ethnic group.
- 3- I have a clear sense of my ethnic background and what it means for me.
- 4- I think a lot about how my life will be affected by my ethnic group membership.
- 5- I am happy that I am a member of the group I belong to.
- 6- I have a strong sense of belonging to my own ethnic group.
- 7- I understand pretty well what my ethnic group membership means to me.
- 8- In order to learn more about my ethnic background, I have often talked to other people about my ethnic group.
- 9- I have a lot of pride in my ethnic group.
- 10- I participate in cultural practices of my own group, such as special food, music, or customs.
- 11- I feel a strong attachment towards my own ethnic group.
- 12- I feel good about my cultural or ethnic background.
- 13- My ethnicity is
 - (1) Asian or Asian American, including Chinese, Japanese, and others
 - (2) Black or African American

(3) Hispanic or Latino, including Mexican American, Central American, and others

(4) White, Caucasian, Anglo, European American; not Hispanic

(5) American Indian/Native American

(6) Mixed; Parents are from two different groups

(7) Other (write in): _____

14- My father's ethnicity is (use numbers above)

15- My mother's ethnicity is (use numbers above)

Critical Consciousness of Race and Higher Education (Cerezo, & McWhirter, 2008)

Disagree					Agree	
1	2	3	4	5	6	7

- __ 1. Racism impacts my educational opportunities.
- __ 2. Attending college does not fit with well with being Latino/a.
- __ 3. As Latino/a, I view myself as less academically prepared than White peers.
- __ 4. Negative sentiment against public policy like Affirmative Action impacts how I feel about myself as a Latino/a college student.
- __ 5. I experience racism in college specifically because I am a Latino/a college student.
- __ 6. Sometimes I feel that as a Latino/a, I do not belong in college.
- __ 7. I feel a sense of connection with other students of color.
- __ 8. I speak openly with other students of color about my experiences as a Latino/a college student.
- __ 9. I talk with my friends about society's impact on educational equity and opportunities for Latino/as.
- __ 10. I have a strong interest in learning more about injustices that face Latino/a college students.
- __ 11. I would support and/or participate in an advocacy effort to change stereotypes and Latino/a college students.

Intention to Utilize Campus Resources Scale

For each of the following items, indicate the extent to which you plan on utilizing the following campus resources. Use the following ratings:

Not at all Likely						Very likely
1	2	3	4	5	6	7

In the next six weeks I will contact or visit...

- 1. The financial aid office if I have questions about my financial situation.
- 2. The counseling center if I feel that I need emotional support.
- 3. Academic services if I feel that I need academic support.
- 4. A student group if I feel that I want to be connected with my peers.
- 5. The health center if I am feeling sick or have questions about my health.
- 6. The counseling center if I am feeling down or need someone to talk with.
- 7. My resident advisor if I am experiencing difficulty with a dorm mate.
- 8. Academic services if I am experiencing difficulty with a class.
- 9. A student group if I feel that I want to get to know people on campus.
- 10. Academic services if I am experiencing difficulty with choosing a major.
- 11. The health center if I am feeling down or need someone to take with.
- 12. The financial aid office if I am confused about my financial aid packet.
- 13. My resident advisor if I feel that I am homesick or need support.

Collective Self-Esteem Scale (Luhtanen & Crocker, 1992)

INSTRUCTIONS: We are all members of different social groups or social categories. We would like you to consider your race or ethnicity (e.g., African-American, Latino/Latina, Asian, European-American) in responding to the following statements. There are no right or wrong answers to any of these statements; we are interested in your honest reactions and opinions. Please read each statement carefully, and respond by using the following scale from 1-7.

- 1. I am a worthy member of my race/ethnic group.
- 2. I often regret that I belong to my racial/ethnic group.
- 3. Overall, my racial/ethnic group is considered good by others.
- 4. Overall, my racial/ethnic group has very little to do with how I feel about myself.
- 5. I feel I don't have much to offer to my racial/ethnic group.
- 6. In general, I'm glad to be a member of my racial/ethnic group.
- 7. Most people consider my racial/ethnic group, on the average, to more ineffective than other groups.
- 8. The racial/ethnic group that I belong to is an important reflection of who I am.
- 9. I am a cooperative participant in the activities of my racial/ethnic group.

- 10. Overall, I often feel that my racial/ethnic group not worthwhile.
- 11. In general, others respect my race/ethnicity.
- 12. My race/ethnicity is unimportant to my sense of what kind of person I am.
- 13. I often feel I'm a useless member of my racial/ethnic group.
- 14. I feel good about the race/ethnicity I belong to.
- 15. In general, others think that my racial/ethnic group is unworthy.
- 16. In general, belonging to my race/ethnicity is an important part of my self-image.

Evaluation of LEEP Facilitator

Facilitator Name: _____

Date: _____

University Site: _____

Please answer the following questions rating the performance of your group facilitator with 1 meaning "Not at all true", 2 meaning "Somewhat True", 3 meaning "True", 4 meaning "Very True", and 5 meaning "Completely True".

My facilitator appeared to know and understand the content of the intervention program.	1	2	3	4	5
My facilitator made the content of intervention program understandable to me.	1	2	3	4	5
In general, my facilitator demonstrated strong skills as a facilitator.	1	2	3	4	5
My facilitator was able to "connect" with me and made me feel comfortable as part of my group.	1	2	3	4	5

Was there anything you would like to share that was not included in the questions above?

APPENDIX C

IRB MATERIALS

Recruitment Information:
EXPERIMENTAL AND CONTROL GROUPS
(LETTER/EMAIL/VERBAL SCRIPT WHEN VISITING GROUPS)

Dear [*insert name*],

My name is Alison from the Counseling Psychology program at the University of Oregon and I am inviting you to participate in my graduate research study. This is a study about Latino/a students' college experiences. You're eligible to be in this study because you are 18 years of age or older, are an undergraduate college student, are able to read, write, and speak English, and self-identify as Latino/a, Chicano/a, and/or Hispanic descent. I obtained your contact information from *insert appropriate source* _____ [*University Housing and Dining/CASA Educacional Office/University Housing/Office of Multicultural Academic Support.*]

If you decide to participate in this study, you will be asked to complete one of two things: (a) complete two packets of questionnaires that will each take approximately 30 minutes to complete or (b) complete three packets of questionnaires that will each take approximately 30 minutes to complete each *and* a 2-day intervention program. The intervention program should take between 8 - 10 hours to complete. You will be compensated for your participation in this project with a USB thumb drive with 64 megabytes of memory. If you participate in the intervention program, I would like to video record your intervention group so that we can use the information to rate facilitator's ability to run groups. The video recording will not be used to gather data on you as a participant in the intervention program.

The intervention program is being conducted in a group format. Since there is no way that I control all that is said within and outside of the group, I cannot guarantee confidentiality of your responses if you participate in the intervention group. It is therefore important that you share only that information that you are comfortable sharing in a group format.

Your participation in this research project will be completely voluntary. If you are interested in participating in this study, please contact me at (541) 579-4455 or acerezo@uoregon.edu for more information. Thank you very much.

Sincerely,
Alison Cerezo

Consent Form: Experimental Group

You are invited to participate in a research study conducted by Alison Cerezo, M.A. from the University of Oregon Counseling Psychology program. The purpose of this study is to learn about Latino/a students' college experiences. The results of this study will be used as Ms. Cerezo's dissertation research project. You were selected as a possible participant in this study because you are 18 years of age or older, are an undergraduate college student, are able to read, write, and speak English, and self-identify as Latino/a, Chicano/a, and/or Hispanic descent.

The purpose of this program is to assist students' with adjusting to the academic and social demands of university. If you decide to participate, you will be involved in a one-day program named the Latino/a Educational Equity Project (LEEP). This program will occur on one day for a total time of about 8 hours at your university campus. You have been selected to participate in the LEEP program on __ from __ in the __.

In addition to the program, you will also complete questionnaires about your experiences in college. The questionnaires should take about 30 minutes to complete. The questionnaires will ask about your experiences in university. You will be asked to complete the questionnaires (a) before the program, and again (b) one week and (c) eight weeks after you have completed the program.

The program and questionnaires may cause emotional discomfort and/or distress since participants will be sharing their experiences in university that may include negative experiences. However, the facilitators will be trained in how to run groups and how to appropriately respond to participants' potential discomfort during the program.

The program will be conducted in a group format. Since we cannot control all that is said within and outside of the group, there is no guarantee of confidentiality. It is therefore important that you share only that information that you are comfortable sharing in a group format. Participants are encouraged to not share information discussed in the focus group outside of the group setting.

The results of this study will help provide knowledge about Latino/a students' university experiences and will also assist with developing future retention programming. However, we cannot guarantee that you personally will receive any benefits from this research. You will be compensated for your participation in this study with a 2GB thumb/flash drive for your personal use.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. An identification number will be provided to you to track your completion of the questionnaires given to you before and after the intervention. The identification number will be pre-assigned to you by using a coding system that ties your name to your

identification number. Alison Cerezo will be the only person with access to the coding system. When you receive your questionnaires, there will be a number listed in the top right-hand corner. That will be your identification number. The coding list that holds your name and identification number will be destroyed once data is collected and matched up for all participants. All data gathered from the questionnaires will be kept in locked locations in the College of Education. Data from the questionnaires will be kept for five years and then destroyed.

Subject identities will be kept confidential by assigning each participant with a number that will be used on completed questionnaires. Your name will never appear on any questionnaires and all completed questionnaires will be kept in a locked file cabinet at the University of Oregon. Only Ms. Cerezo and members of the research team will have access to the locked file cabinet.

Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with the University of Oregon. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions, please feel free to contact Alison Cerezo, Counseling Psychology Program at the University of Oregon, (541) 579-4455, 5251 University of Oregon, Eugene, Oregon, 97401. You may also contact my staff advisor, _____. If you have questions regarding your rights as a research subject, contact the _____. This Office oversees the review of the research to protect your rights and is not involved with this study.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Print

Name _____

Signature

Date _____

Consent Form: Control Condition

You are invited to participate in a research study conducted by Alison Cerezo, M.A. from the University of Oregon Counseling Psychology program. The purpose of this study is to learn about Latino/a students' college experiences. The results of this study will be used as Ms. Cerezo's dissertation research project. You were selected as a possible participant in this study because you are 18 years of age or older, are an undergraduate college student, are able to read, write, and speak English, and self-identify as Latino/a, Chicano/a, and/or Hispanic descent.

If you decide to participate, you will be asked to complete two packets of questionnaires about your experiences in college. The packets of questionnaires should each take about 30 minutes to complete. You will be asked to complete the two packets at two different time points that are eight weeks apart.

The questionnaires may cause emotional discomfort and/or distress since you will be sharing your experiences in university that may include negative experiences. However, the results of this study will help provide knowledge about Latino/a students' university experiences and will also assist with developing future retention programming. However, I cannot guarantee that you personally will receive any benefits from this research. You will be compensated for your participation in this study with a 2 GB flash-drive for your personal use.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. An identification number will be provided to you to track your completion of the questionnaires at the two time-periods. The identification number will be pre-assigned to you by using a coding system that ties your name to your identification number. Alison Cerezo will be the only person with access to the coding system. When you receive your questionnaires, there will be a number listed in the top right-hand corner. That will be your identification number. The coding list that holds your name and identification number will be destroyed once data is collected and matched up for all participants. All data gathered from the questionnaires will be kept in locked locations in the College of Education. Data from the questionnaires will be kept for five years and then destroyed.

Your participation is voluntary. Your decision whether or not to participate will not affect your relationship with the *insert* _____ (University of Oregon; Oregon State University; University Housing and Dining; CASA Educacional Office; Office of Multicultural Academic Support). If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions, please feel free to contact Alison Cerezo, Counseling Psychology Program at the University of Oregon, (541) 579-4455, 5251 University of Oregon, Eugene, Oregon, 97401. You may also contact my faculty advisor, Benedict

McWhirter, Ph.D., at (541) 346-2410, 5251 University of Oregon, Eugene, Oregon, 97401. If you have questions regarding your rights as a research subject, contact the Office for Protection of Human Subjects, University of Oregon, Eugene, OR 97403, (541) 346-2510. This Office oversees the review of the research to protect your rights and is not involved with this study.

Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Print
Name _____

Signature

Date _____

Cover Letter for Post-Intervention Participants: Experimental

Thank you for participating in my research project on Latino/a students' college experiences. Results from this study will be used for my dissertation research and will help me understand retention programming for Latino/a college students.

Last week/Eight weeks ago you completed the LEEP intervention and a packet of questionnaires. Thank you.

This is now the second/third step of your participation with this project. All you need to do at this time is complete this packet of questionnaires, which should take approximately 30 minutes, and return them using the self-addressed envelope provided to you via campus mail. Your participation is voluntary. If you do not wish to participate, simply discard the questionnaires. Completing and returning the questionnaires constitutes your consent to participate.

Responses will remain confidential; an identification number has been pre-assigned to you and appears in the top right-hand corner of your questionnaires. The same number appeared on the questionnaires you completed last week/eight weeks ago. A coding system has been created to tie your name to your identification number so that I can keep track of your completion of the questionnaires (I will be the only person with access to the coding system). The coding system will be destroyed once data is collected and matched up for all participants. All data gathered from the questionnaires will be kept in locked locations in the College of Education. Data from the questionnaires will be kept for five years and then destroyed.

In eight weeks you will receive the final packet of questionnaires. That will be last step in your participation with this project (only used for the second round of data gathering).

Keep this letter for your records. If you have any questions regarding the research contact Alison Cerezo, Counseling Psychology Program at the University of Oregon, (541) 579-4455, 5251 University of Oregon, Eugene, Oregon, 97401. You may also contact my faculty advisor, Benedict McWhirter, Ph.D., at (541) 346-2410, 5251 University of Oregon, Eugene, Oregon, 97401. If you have any questions regarding your rights as a research subject, please contact the Office for Protection of Human Subjects at the University of Oregon, (541) 346-2510. This Office oversees the review of the research to protect your rights and is not involved with this study.

Thank you again for your help.

Alison Cerezo

Cover Letter for Post-Test Measures: Control Group

Thank you for participating in my research project on Latino/a students' college experiences. Results from this study will be used for my dissertation research and will help me understand retention programming for Latino/a college students.

You completed a packet of questionnaires eight weeks ago. Thank you.

This is now the final step in your participation with this project. All you need to do is complete this packet of questionnaires, which should take approximately 30 minutes, and return them using the self-addressed envelope provided to you via campus mail. Your participation is voluntary. If you do not wish to participate, simply discard the questionnaires. Completing and returning the questionnaires constitutes your consent to participate.

Responses will remain confidential; an identification number has been pre-assigned to you and appears in the top right-hand corner of your questionnaires. The same number appeared on the questionnaires you completed eight weeks ago. A coding system has been created to tie your name to your identification number so that I can keep track of your completion of the questionnaires (I will be the only person with access to the coding system). The coding system will be destroyed once data is collected and matched up for all participants. All data gathered from the questionnaires will be kept in locked locations in the College of Education. Data from the questionnaires will be kept for five years and then destroyed.

If you have any questions regarding the research contact Alison Cerezo, Counseling Psychology Program at the University of Oregon, (541) 579-4455, 5251 University of Oregon, Eugene, Oregon, 97401. You may also contact my faculty advisor, Benedict McWhirter, Ph.D., at (541) 346-2410, 5251 University of Oregon, Eugene, Oregon, 97401. If you have any questions regarding your rights as a research subject, please contact the Office for Protection of Human Subjects at the University of Oregon, (541) 346-2510. This Office oversees the review of the research to protect your rights and is not involved with this study.

Thank you again for your help.

Alison Cerezo

Verbal Consent Script: Experimental

This is _____ *facilitator's name* from the University of Oregon Counseling Psychology program. Your participation in this program will be used for Alison Cerezo's dissertation research. Thank you for agreeing to participate in my/her research project. The research will help me/her better understand Latino/a students' college experiences.

As a reminder, the intervention will be videotaped. The recording will not be used to gather information about you during this intervention. Rather, we are recording to assess group facilitators' ability to run groups. Each of you has consented to recording and for participating in the research project. Please let me know if you have any questions about your consent forms. I will be happy to answer any questions that you may have.

Today and tomorrow you will be participating in an intervention program, which should take approximately 9 hours altogether to complete; about four hours today and another four hours tomorrow. Your participation is voluntary. If you do not wish to participate, you may stop at any time.

During the intervention program you will be working with a group of students; I will not be able to guarantee confidentiality because we will be discussing information as a group. Therefore, if you would feel uncomfortable with any of your statements being shared with others in or outside the group, please do not share them during the process.

If you would like a copy of this information for your records, please let me know and I will send you a copy over email. If you have any questions regarding the research, contact Alison Cerezo, Counseling Psychology Program at the University of Oregon, (541) 579-4455, 5251 University of Oregon, Eugene, Oregon, 97401. You may also contact my/her faculty advisor, Benedict McWhirter, Ph.D., at (541) 346-2410, 5251 University of Oregon, Eugene, Oregon, 97401. If you have any questions regarding your rights as a research subject, please contact the Office for Protection of Human Subjects at the University of Oregon, (541) 346-2510. This Office oversees the review of the research to protect your rights and is not involved with this study.

Thank you again for your help.

Latino/a Educational Equity Project (LEEP)



Do you identify as Latino/a, Chicano/a and/or Hispanic?

If so, you might be eligible to participate in a research project to increase understanding about Latino/as' experiences in college.

This research project involves completing questionnaires about college experiences and participating in an intervention program. Your participation will take between 2 – 10 hours to complete.

You are eligible to participate in this project if you identify as a Latino/a, Chicano/a and/or Hispanic, are 18 years of age or older, and are an undergraduate student at a four-year university. You must also be able to read, write, and speak English.

You will be compensated for your participation with 2 GB flash-drive. It is hoped that this research will eventually help to assist other researchers and clinicians in understanding and working more effectively with Latino/a students.

If you are interested in finding out more about this research project, please contact:

Alison Cerezo, M.A.

Department of Counseling Psychology, University of Oregon

acerezo@uoregon.edu -- (541) 579-4455

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