

The Importance of 'Getting it Right:' Understanding the Relationship Between Student
Thriving and Spirituality Among Students of Color

Eric J. McIntosh
The King's University College

Laurie A. Schreiner
Azusa Pacific University

Purpose of the Study

The most basic definition of student success focuses on enabling students to gain access to college and complete a certificate or degree. This definition is the basis of arguments that emphasize increasing access, enrollment, and persistence (Bowen, Chingos, & McPherson, 2009; Hauptman, 2007; Kinzie, 2012). Student success is often equated with graduation; as a result, theories of student success that have arisen from this definition are based on persistence models (e.g., Braxton, 2000; St. John, Cabrera, Nora, & Asker, 2000; Tinto, 1975, 1993). Using this perspective, student behaviors predictive of graduation have been outlined as the target of student success initiatives; such behaviors include, but are not limited to, campus involvement (Astin, 1984, 1993) and interaction with faculty (Chickering & Gamson, 1987; Kuh & Hu, 2001).

In recent years, research exploring student success has emerged in ways that extend beyond the fundamental benchmarks of college completion rates and grades. Such expanded foci have included learning gains (Barr & Tagg, 1995), talent development (Kuh, Kinzie, Schuh, Whitt, & Associates, 2005), satisfaction (Schreiner & Nelson, 2013), sense of belonging (Hurtado & Carter, 1997), and student engagement (Kuh, 2001). Kuh, Kinzie, Buckley, Bridges, and Hayek (2007) created perhaps the broadest conceptualization of student success as academic achievement, engagement in educationally purposeful activities, satisfaction, acquisition of desired knowledge, skills and competencies, persistence, attainment of educational objectives, and post-college performance.

Most of the focus in current student success research, however, focuses on student engagement. The concept of student engagement originates from Pace's (1980) measures

of quality of effort and Astin's (1984) theory of involvement and represents two key components. The first is the amount of time and effort students put into their studies and other activities that lead to student success outcomes. The second component of this perspective of student engagement is how institutions of higher education allocate their human and other resources and organize learning opportunities and services to encourage students to participate in and benefit from such activities (Kuh, 2001). Discussion and research on engagement in higher education is due largely to the expansive research conducted at Indiana University through the National Survey of Student Engagement (NSSE).

A need exists for a perspective on student success that expands beyond student behaviors, graduation rates, and academic performance to include psychological well-being and optimal functioning. Such a perspective has emerged in recent years from the positive psychology movement and its intersection with higher education (Schreiner, Hulme, Hetzel, & Lopez, 2009) in a construct labeled *thriving* (Schreiner, 2010c).

When student success is defined as academic performance and graduation, concerns arise for African American, Latino, and Native American students, in particular (Aud, Fox et al., 2010). The African American and Latino student graduation rates from 4-year institutions (40% and 49% respectively) lag significantly behind the 60% graduation rate of Caucasian students, and the 67% graduation rate of Asian students (Aud et al., 2011). When the definition of student success is expanded to include the psychological well-being and optimal functioning inherent in thriving, non-Caucasian student groups experience barriers to their success on American college and university

campuses that arise from their minority status on predominantly Caucasian campuses (D'Augelli & Hershberger, 1993; Jones, Castellanos, & Cole, 2002; Ying et al., 2001).

In exploring the contributors to thriving among students of color, current literature suggests two primary areas to examine as possible pathways to student success, given that they tend to differ significantly from the experiences of Caucasian students. These two major contributors include student spirituality and a psychological sense of community (Astin, 2004a; Astin, Astin, & Lindholm, 2011b; Braskamp, Trautvetter, & Ward, 2006; Chavis & Pretty, 1999; Chickering, Dalton, & Stamm, 2006; DeNeui, 2003a; Hurtado & Carter, 1997; Jablonski, 2001; Lounsbury & DeNeui, 1995; Nash, 2008).

This paper explores the distinct ways in which student spirituality contributes to the prediction of thriving among students of color using structural equation modeling. Data for this study were drawn from a larger study exploring the predictive nature of demographic characteristics, student campus characteristics such as campus involvement and faculty interaction, spirituality, and a psychological sense of community on student thriving (McIntosh, 2012).

Conceptual Framework

Although behavior-based theories by Pace (1969, 1979, 1980, 1984) and Astin (1968, 1977, 1984) have been a hallmark of higher education over the past three decades, researchers have argued that psychological measures of engagement are worthy of consideration, as well (Bean & Eaton, 2002; Pascarella & Terenzini, 2005). Robbins, Lauver, Le, Langley, Davis and Calstrom's (2004) meta-analysis established the incremental validity of psychosocial factors as predictors of student success; Schreiner

(2010c) and others (Schreiner, McIntosh, Nelson, & Pothoven, 2009) have explored these psychosocial factors through the construct of *thriving*. This approach includes academic factors but also acknowledges the importance of personal well-being and healthy relationships with others as vital components of a successful student experience.

The construct of thriving was derived from research on flourishing within adult populations that emerged from the positive psychology movement. Human flourishing is conceptualized as positive emotions and optimal well-being (Keyes, 2002). Flourishing “exemplifies mental health” (Keyes & Haidt, 2003, p. 6) and is evident in individuals who are experiencing life to its fullest rather than simply existing. Flourishing individuals are resilient in the face of life’s challenges, demonstrate personal growth and optimism through adversity, set and pursue goals, and connect emotionally to the world (Keyes & Haidt, 2003). Individuals who flourish bring this perspective into the world around them, positively and indelibly changing their world.

Thriving is based on a conceptualization of student engagement and persistence as psychologically motivated (Bean & Eaton, 2002). The construct of thriving builds on the psychological well-being implied in flourishing and encompasses elements critical to college students’ success: academic engagement, effort regulation, citizenship, openness to diversity, goal-setting, optimism, and self-regulated learning (Schreiner, McIntosh et al., 2009). Thriving students are fully engaged intellectually, socially, and emotionally (Schreiner, Pothoven, Nelson, & McIntosh, 2009).

The study of thriving focuses on student well-being and is grounded in Bean and Eaton’s (2002) psychological model of student retention. From this perspective, retention is not merely a function of student behavior, but is rather an outward function of

what is happening in the minds of students. Students who are psychologically engaged in life and vibrantly connected to the world around them are engaged with all aspects of their learning and the community within which they learn, which leads to persistence.

Bean and Eaton's (2002) psychological model of student retention builds on Tinto's (1975) sociological model. A process of interaction between the student and the institution, as identified by Bean and Eaton, is reciprocal and iterative, leading to "academic and social integration, institutional fit and loyalty, intent to persist, and to the behavior in question, persistence itself" (p. 58).

Three Domains of Thriving

Thriving occurs within three domains: (a) academic thriving, (b) interpersonal thriving, and (c) intrapersonal thriving (Schreiner, McIntosh et al., 2009). Academic thriving includes psychological constructs previously linked to academic success, such as learning engagement (Schreiner & Louis, 2011), self-regulated learning and effort regulation (Pintrich, 2004; Pintrich, Smith, Garcia, & McKeachie, 1993; Robbins et al., 2004), environmental mastery (Ryff, 1989), and hope (Snyder, 1995). Intrapersonal thriving includes measures of student perceptions of the quality of their circumstances in life and includes items measuring optimism (Luthans, Youssef, & Avolio, 2007) and subjective well-being (Diener, Suh, Lucas, & Smith, 1999). Interpersonal thriving explores the social connections of life, such as positive relationships (Ryff, 1989), openness to diversity (Miville, Gelso, Pannu, Holloway, & Fuertes, 1999), and civic engagement, with a desire to make a difference in one's community (Tyree, 1998).

Five Factors of Thriving

Together, all three domains of thriving measure factors that are psychologically rooted and amenable to change through intervention (Schreiner, 2010a). Each domain within thriving is measured through a combination of one or more factors. Through a confirmatory factor analysis, a five-factor model of thriving emerged (Schreiner, McIntosh et al., 2009). The results of the structural equation modeling analysis indicated that both the measurement model of each factor and the structural model predictive of thriving were a strong statistical fit for the data collected. These results mean that the items measuring each factor of thriving were strong indicators of the proposed construct of thriving and that scores on the five-factor thriving scale were significantly predictive of elements of student success that tend to be valued within higher education, such as persistence, GPA, and institutional fit (Schreiner, Pothoven et al., 2009). A second-order factor of *thriving* was also identified through structural equation modeling; the presence of a second-order factor means that there is evidence that the construct of thriving is more than the sum of its five scales, but is a unique construct on its own. Each of the five factors that comprise the construct of thriving is described.

Engaged Learning. Demonstrating both behavioral actions and the psychological processes reflective of deep learning (Schreiner & Louis, 2011), Engaged Learning is “defined as a positive energy invested in one’s own learning, evidenced by meaningful processing, attention to what is happening in the moment, and involvement in specific learning activities” (p. 6). The Engaged Learning factor assesses the meaningful processing and focused attention inherent in Tagg’s (2004) concept of *deep learning* and Langer’s (1997) concept of *mindfulness*. Rather than assessing primarily behavioral

indicators as evidence of learning engagement, this component of academic thriving measures the psychological processes underlying such engagement (Schreiner, McIntosh et al., 2009).

Academic Determination. Academic Determination reflects a student's ability to self-regulate his or her learning, set goals, master the learning environment and shape it to suit his or her needs, and set achievable goals. Students with high Academic Determination can self-regulate and contextualize the amount of effort required to overcome specific challenges (Pintrich, 2004; Pintrich, 2000; Pintrich et al., 1993); here, self-regulation is both cognitive and behavioral and is associated with internal thoughts and perceived external pressures. Environmental mastery reflects students' ability to manage their time and resources appropriately (Ryff, 1989). Academic hope is comprised of two dimensions: willpower (agency) and waypower (pathways), where agency is the motivation to move toward one's goals, and pathways is the perception that strategies exist to reach one's desired destination (Snyder, 1995).

Positive Perspective. A positive perspective can be described as one's ability to have a confident attitude on broad dimensions of life's outlook, direction, and purpose and is a combination of optimism (Carver, Scheier, Miller, & Fulford, 2009) and subjective well-being (Diener et al., 1999). Optimism "reflects the extent to which people hold generalized favorable expectancies for their future" (Carver, Scheier, & Segerstron, 2010, p. 879) and is favorably linked with higher levels of subjective well-being, better coping skills, and mental engagement (Scheier, Carver, & Bridges, 1994). Subjective well-being is more than mere happiness and reflects "a broad category of

phenomena that includes people's emotional responses, domain satisfactions, and global judgments of life satisfaction" (Diener et al., 1999, p. 277).

Diverse Citizenship. Diverse Citizenship is a measure of openness to differences and the desire and belief that one is capable of making a contribution to one's community. Diverse Citizenship reflects the desire to act for the good of the community on behalf of others (Tyree, 1998) and includes the embracement of diversity (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000). Items from the Universal-Diverse Orientation construct (Miville et al., 1999) and the *Socially Responsible Leadership Scale* (Tyree, 1998) were adapted for college students and comprise the Diverse Citizenship scale. Within the context of thriving, the desire to positively contribute to the community forms the basis of the Diverse Citizenship scale within the Thriving Quotient.

Social Connectedness. The Social Connectedness scale of the Thriving Quotient focuses upon the benefits of close friendships, specifically those upon whom one can rely in times of need. Positive communal potential is one indicator of a vibrant campus culture where students feel they can find, join, and build community with one another (Braxton & Hirschy, 2004). Positive social integration is identified in the literature as an important aspect of student retention (Braxton, Hirschy, & McClendon, 2004; Tinto, 1993); additional research specifically confirms that such communities positively impact the college experience for students of color (Anglin & Wade, 2007; Nora, Cabrera, Hagedor, & Pascarella, 1996; Nuñez, 2009; Walton & Cohen, 2007; Zirkel, 2004).

Spirituality

Faith development, spirituality, and religiosity have not historically been a focus of research in higher education; aspects of higher education such as the development of

the mind, have instead historically been the attention of researchers. More recently, however, researchers have published studies focused on constructs such as religious practice, spirituality, faith formation, character development, and life calling (Astin et al., 2011b; Braskamp et al., 2006; Chickering et al., 2006; Jablonski, 2001; Parks, 2000). A longitudinal study of spirituality in higher education (Astin et al., 2011b) found that the vast majority of students categorize themselves as spiritual. The former Hellenistic dualistic perspective, that the academic aspects of students and faculty can and should be separate from the personal and spiritual aspects, is perhaps not a reflection of reality (Dawson, 2010). A recent exploration of student spirituality in college explored recent literature and trends, student characteristics and group differences, college environments, and outcomes with regard to student spirituality (Rockenbach, & Mayhew, 2013).

Despite a vast literature on faith formation, beginning with Fowler's research in 1981, research exploring the intersection of spirituality and learning in the broader university arena remains relatively unexplored. Astin et al. (2011b) characterized the modern approach to secular education as "impersonal and fragmented" (p. 7) and urged educators to consider a more holistic approach to education that connects the mind and spirit to "an education that examines learning and knowledge in relation to an exploration of self" (p. 7). Astin et al. argued that a return to such an education would require faculty and students to explore more deeply and intimately the existential questions of life including: Who am I? What is my purpose in life? and What kind of person am I in the process of becoming?

Researchers have noted that there are conceptual differences between spirituality, religiosity, and faith (Astin et al., 2011b; Bosacki, 2005; Braskamp et al., 2006;

Chickering et al., 2006; Parks, 2000). Braskamp et al. (2006) defined faith as “a student’s nonrational, affective, and ethical dimensions” (p. 21), similar to Astin’s (2004b) definition of the “interior” of an individual. Religion, however, is generally associated with a set of specific beliefs associated with dogma or doctrine (Zinnbauer, Pargament, & Scott, 1999). Membership is the hallmark Miller (2004) attributed to the distinction between faith and religion. He argued that social boundaries establish membership in a religion based upon a set of beliefs. In contrast, spirituality is defined by Astin et al. (2011b) as:

...our sense of who we are and where we come from, our beliefs about why we are here – the meaning and purpose that we see in our work and our life – our sense of connectedness to one another and to the world around us. Spirituality can also bear on aspects of our experience that are not easy to define or talk about, such things as intuition, inspiration, the mysterious, and the mythical ... highly spiritual people tend to exemplify certain personal qualities such as love, compassion, and equanimity. (p. 4)

Although Braskamp et al. (2006) stated that faith, religiosity, and spirituality are interrelated, this study focuses on the relationship between spirituality, as it relates to a reliance on a higher power when life is difficult, and student success. For example, it has been demonstrated that students who develop spiritually throughout college are more likely to pursue careers and life directions that align with their deepest beliefs (Dalton, 2001).

Students can benefit from the positive impacts of a healthy spiritual self. Astin et al.’s (2011b) landmark longitudinal study of spirituality in higher education found that

students with higher spirituality scores were more satisfied with college, received higher grades, were more likely to desire inner peace in times of hardship (equanimity), were more embrative of diversity, and exhibited higher academic self-esteem. Interacting with faculty positively correlated with student spiritual questing. Findings indicated that students reported higher spiritual questing scores when faculty encouraged them to think about life purpose and meaning.

Students of all ethnic groups report being spiritual (Astin et al., 2011b); however, spirituality is not a universal experience for all people and spiritual growth among college students varies across ethnic groups (Gehrke, 2013). Culture and background are important in understanding the impact of spirituality on individuals. According to Cervantes and Parham (2005), spirituality is an important aspect within every Latino ethnic group represented in the United States; the researchers noted, however, that expressions and experiences of spirituality, religiosity, and faith practice differ among Latino groups. For example, some Latino spirituality has a decidedly Catholic overtone; yet, the religious practices and spirituality of another Latino group may be animistic or rooted in native spiritualism. In a quantitative study of Latino spirituality, Campesino, Belyea, & Schwartz (2009) found that Latino students reported significantly higher responses on nearly all religious practice and spiritual questions compared with non-Latinos.

A literature review of counseling practices for people of color by Cervantes and Parham (2005) identified links between spirituality and faith practices of Latinos and psychological well-being. The researchers noted that people of color experience spirituality in many ways, and spirituality and religiosity are important in the cultural

upbringing and socialization of many minority groups. Implications from the literature review suggested that individual faith practices and cultural spiritual practices among people of color can help build a pathway to wellbeing for many people of color.

Whatever their spiritual background, Latino students attend more religious services than students from any other ethnic group (Campesino et al., 2009). The communal aspects of religious practice are important for Latinos. The communal tendencies inherent in Latino culture are evident not only in religious attendance, but also in faith practice. For many Latinos, faith practice is often embedded into the context of community and family rather than in individualistic behaviors (Elizondo, 2000).

Just as spirituality is an integral part of the Latino experience, spirituality among African Americans is an important part of daily life. An integral dimension of a balanced African American identity is the development of a healthy spiritual self (Jagers & Mock, 1993). In a qualitative study of 12 African American students in a predominantly Caucasian private college, a pervasive theme reported by Constantine, Miville, Warren, Gainor, and Lewis-Coles (2006) was the importance of spirituality in overcoming life's challenges. Larger quantitative studies, such as Walker and Dixon's (2002) correlational study of 212 undergraduate psychology students, have found a significant relationship between academic success and reliance in a higher power among African American students. In this same study, the cumulative grades of Caucasian students were correlated significantly with religious participation rather than with overall spirituality. African American student grades, both semester and cumulative, were each found to be correlated significantly with overall spirituality and religious participation.

Spirituality among Asian Americans is very diverse (Constantine et al., 2006). Faith practices among Asian Americans represents a spectrum of major world religions such as Hinduism, Buddhism, Islam, and Christianity, and many forms of animism. Despite the diversity of religious practice among Asian Americans, little is known about the intersection of personal faith practice and college success for Asian students.

Psychological Sense of Community

A psychological sense of community (PSC) on campus is a student's perception of fit and belonging on campus and the perception of need fulfillment through common experiences within the community. For this study, PSC is based on McMillan and Chavis's (1986) conceptualization of a *psychological sense of community* as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9), and is inclusive of the sense of belonging that Hurtado and Carter (1997) note is vital to success among students of color. A psychological sense of community is a holistic way of exploring membership, ownership, and relationships and is used as a primary predictor of thriving in this study.

Methods

The purpose of this study was to explore the contribution of student spirituality to student thriving in the context of a larger study (McIntosh, 2012) that explored relationships among (a) campus involvement, (b) student-faculty interaction, (c) spirituality, and (d) psychological sense of community in traditional undergraduate college students of color and how these relationships contribute to thriving. To explore the direct, indirect, and total effects of the proposed model, structural equation modeling

(SEM) was utilized to test the model fit for predicting thriving in a proposed structural model. SEM is best suited to answer this research question because it is a confirmatory statistical technique (Ullman, 2007). Analysis in SEM allows researchers the ability to explore both observed variables and variables that cannot be directly observed, or *latent* constructs (Byrne, 2010). Observed variables utilized in this study included items regarding interaction with faculty, involvement in campus clubs and organizations, indicators related to a psychological sense of community, and items related to spirituality. Control variables in the model included such demographic variables as gender, high school grades, year of study, athlete status, campus resident, hours worked per week off campus, and major certainty. Institutional characteristics also served as control variables; these included the percent of female students enrolled, whether the institution was public or private, institutional selectivity, and the percent of Caucasian students enrolled. One general fit model served as the baseline model that was examined to test fit for all students, including Caucasian students. Subsequent ethnic group models were then tested to determine if better model fit could be found among students of each identified ethnic group (a) African American, (b) Latino, and (c) Asian American.

Hypothesized Model

To determine how the latent constructs and observed variables contributed to thriving among students of color, a model was developed from the relevant literature. The model presented by Schreiner, Nelson, Edens, and McIntosh (2011) was initially tested using multi-group analysis in AMOS. The hypothesized path model is shown in Figure 1.

Insert Figure 1 about here

Participants

Participants in this study included all students of color from the *Thriving Quotient* data collection project of spring 2011. Data were collected from 59 institutions representing a range of private and public institutions of varying Carnegie classifications. Table 1 displays the institutional characteristics of the sample. Participants were only undergraduate students ages 18 to 25 years. Table 2 displays the demographic characteristics of the sample.

Insert Tables 1 and 2 about here

Instrumentation

Thriving Quotient. Student thriving is the primary dependent variable in this study; the primary dependent variable is also known as the ultimate endogenous variable in structural equation modeling (Kline, 2005). The Thriving Quotient is a 25-item instrument measured along a 6-point Likert scale with a reliability of $\alpha = .89$ (Schreiner, Edens, & McIntosh 2011). A confirmatory factor analysis of the five-factor model of thriving by Schreiner, Edens, and McIntosh (2011) demonstrated excellent fit, ($\chi^2_{(257)} = 2747.67$ $p < .001$, CFI = .956, and RMSEA = .042) with 90% confidence intervals of .040 to .042. Observed variables in their study loaded onto latent constructs (β range = .49 to .88). Alpha coefficients of the five thriving factors were reported as follows: Engaged Learning (5 items, $\alpha = .83$), Diverse Citizenship (6 items, $\alpha = .80$), Academic Determination (6 items, $\alpha = .82$), Positive Perspective (5 items, $\alpha = .83$), and Social Connectedness (3 items, $\alpha = .82$).

Spirituality. The latent construct of Spirituality is comprised of the following three questions measured with a 6-point Likert scale: (1) My spiritual or religious beliefs

provide me with a sense of strength when life is difficult (*Spirituality1*); (2) My spiritual or religious beliefs are the foundation of my approach to life (*Spirituality2*); (3) I gain spiritual strength by trusting in a higher power beyond myself (*Spirituality3*).

The three spirituality items were adapted from items on the *Religious Commitment* scale of the College Students' Beliefs and Values (CSBV) survey. The CSBV is a research project associated with the Higher Education Research Institute (HERI) the University of California Los Angeles (UCLA). The full 12-item Religious Commitment Scale has reported consistency of $\alpha = .96$ in a 2004 sample and $\alpha = .97$ in a 2007 sample (Astin, Astin, & Lindholm 2011a).

Psychological sense of community. The *Psychological Sense of Community on Campus Index* (Schreiner, 2006) was utilized to measure PSC in this study; the index consists of eight items. Schreiner (2006) reports consistent internal reliability of the index ($\alpha = .82$). Items measuring PSC are rated along a 6-point Likert scale.

Student-faculty interaction. Frequency of interaction with faculty and satisfaction with such interaction comprises the observed construct Student-Faculty Interaction. Student answers to these questions were measured along a 6-point Likert scale. Students were asked to rate their satisfaction with faculty contact, and the quality of their interaction with faculty in that year.

Campus involvement. Campus involvement included five questions of involvement frequency. Items for this construct were measured along a 4-point Likert scale. Students were asked to provide the frequency of their involvement in student organizations on campus, campus activities, fraternity or sororities, community service, and leadership in student organizations.

Demographic variables. Thirteen demographic variables were analyzed in this study. Of the demographic variables, four represent institutional variables while the remaining demographic variables were student-based. The variables utilized in this study are shown in Table 3.

Insert Table 3 about here

Procedures

Data were collected via an online survey tool, encrypted and accessible only to the researcher by password. The data were imported into PASW Statistics 18.0 Graduate Pack Edition for analysis. SEM analysis was conducted in AMOS version 19.

Data screening. Data from a spring 2011 study were utilized for this study. Analysis of data began with a dataset containing 8,378 unique observations of participants over the age of 18 who also indicated an answer to the race/ethnicity question. Before any structural modeling could be accomplished, participant data were screened for univariate and multivariate outliers (Tabachnick & Fidell, 2007). Recommendations from Tabachnick and Fiddell (2007) were utilized to normalize the univariate distribution within individual variables that displayed skewness and kurtosis outside statistically acceptable maximums/minimums due to assumptions within SEM of univariate normality (Ullman, 2007). Multivariate outliers represented 5.04% of the sample and were identified through the calculation of the Mahalanobis distance statistic; these outliers were eliminated, as recommended by Tabachnick and Fidell (2007).

SEM cannot be conducted with datasets containing missing values, so analysis was undertaken to determine the extent of missing data in the dataset. Results of Little's MCAR test ($\chi^2_{(7494)} = 9346.70, p < 0.001$) indicated that the data were not missing

completely at random (MCAR). The only distinct pattern observed among missing data indicated a correlation between missing data and placement of items in the survey; the later the item displayed in the survey, the more likely that it was missing. No demographic patterns emerged in the missing data; no patterns indicated any particular kind of student experienced survey fatigue. Thus, missing data were estimated in MVA using Expectation Maximization as recommended by Tabachnick and Fidell (2007), resulting in a complete dataset of $N = 7,956$ participants.

Structural Equation Modeling

SEM is a confirmatory statistical analysis that tests the fit of a proposed model built from assumptions or theories derived from literature review (Ullman, 2007). The first steps performed in SEM are confirmatory in nature rather than exploratory. Analysis performed in SEM tests the assumed relationships proposed within the model. Models are represented graphically in a computer program in which arrows represent direct relationships. The pictorial model represents a series of regression equations (Byrne, 2010). Within the representation of the model, arrows enter into *endogenous* variables, while the *exogenous* variables have arrows leading to other variables. The arrows indicate which variable is being regressed on the other. In the case of this study, the *endogenous* variables were *Thriving*, along with the predictive latent constructs *Campus Involvement*, *Spirituality*, and *Psychological Sense of Community*, and the observed variable *Student-Faculty Interaction*. The *exogenous* variables were demographic variables. *Thriving* represents the ultimate endogenous variable of the study.

In SEM, two component analyses can be distinguished – a measurement model which demonstrates the relationships between the latent constructs and their observed

variables, and a structural model which demonstrates the proposed interaction between the exogenous and endogenous variables in the model (Byrne, 2010). Although a similar analysis could be accomplished utilizing hierarchical multiple regression techniques, SEM is better suited to address this research question because SEM can simultaneously assess both the direct and indirect relationships and interrelationships among multiple independent and dependent variables while quantifying error variance within the model; hierarchical multiple regression can explore only a single layer of relationships between independent and dependent variables (Gefen, Straub, & Boudreau, 2000).

Findings

Proposed Structural Model

An initial structural model was constructed in AMOS and tested for model fit. Initial analysis of the structural model indicated lack of fit ($\chi^2_{(522)} = 15800.89, p < .001$, CFI = .858, RMSEA = .061). Modification indices suggested adjustments to the model that resulted in an omnibus model demonstrating good model fit ($\chi^2_{(319)} = 9064.21, p < .001$, CFI = .901, RMSEA = .059). The omnibus model fit the data from the total sample (see Figure 2). In order to explore the unique predictive characteristics of thriving among students of color, multi-group analysis (MGA) was utilized to explore group differences within the dataset.

Insert Figure 2 about here

Multi-Group Analysis

Adequate numbers of each ethnic group were present in the collected data (African American $n = 433$, Asian $n = 457$, Latino $n = 334$) for MGA in AMOS. Lack of participating Native American students ($n = 37$) prevented analysis of unique group

characteristics from Native Americans. The MGA component of AMOS allows researchers to begin with a statically sound omnibus model, or what Horn and McArdle (1992) referred to as the configural model for all participants, and end with unique characteristics for each group within the omnibus model.

MGA assumes global equivalent covariance structures, meaning that the interaction of variables between groups, in this case ethnic groups, is similar across groups (Jöreskog, 1971); however, Byrne (2008, 2010) noted that assuming equivalent structural covariance across groups is problematic. Within-group phenomena, such as the differences within a group of African American students compared to Caucasian students, does not often conform to an assumption of equality due to the variation in behaviors between ethnic groups. The initial MGA comparing the first five constrained models to the unconstrained model demonstrated lack of statistical fit ($\chi^2_{(1474)} = 11520.35, p < .001$, CFI = .880, RMSEA = .030); statistical evidence did not support fit of the omnibus model across all ethnic groups. Although RMSEA indicated excellent statistical fit, CFI remained below the acceptable threshold of .90 to confirm model fit.

Further analysis was completed to attempt fit within the MGA. Fit statistics remained poor ($\chi^2_{(1435)} = 11328.00, p < .001$, CFI = .882, RMSEA = .031) despite numerous attempts to modify the models by releasing parameter constraints across the groups. Given that adequate fit statistics were not identified through MGA, even after releasing multiple constraints within the model, we determined that the predictive pathways of thriving among students of color were unique enough to prevent MGA of the omnibus model. In other words, measurement invariance was found, but structural

variance, or variation within the pathways across ethnic groups, prevented the exploration of the data utilizing MGA. We explored unique models of thriving for each ethnic group.

Unique Ethnic Group Models

To identify unique predictive models of thriving for each ethnic group in this study, we began with the omnibus model. Each ethnic group model began with all the original latent constructs from the omnibus model and all the control variables from the omnibus model. The master dataset was split into four racial groups.

Relationships among the latent constructs were held constant, given the theoretical assumptions that first established the pathways of the omnibus model. Modification indices in AMOS were analyzed to determine the extent to which changes among the ethnic groups presented possibility for changes to the pathways or elimination of control variables. Specification search was utilized to help identify a best-fit model for each ethnic group (Arbuckle, 2010; Byrne, 2010). Where the CMIN statistic indicated change greater than the chi-square critical statistic that matched the change in degrees of freedom between models, and where changes were theoretically sound, modifications to the models were made, resulting in four distinct models of thriving. Table 4 compares the variables in each unique ethnic group model to the omnibus model.

Insert Table 4 about here

Appropriate fit models emerged for each ethnic group. The African American model fit the data well ($\chi^2_{(195)} = 5873.37, p < .001, CFI = .926, RMSEA = .061$); Figure 3 displays the unique African American model. Table 5 displays the pathway coefficients for the African American model. A unique model for Asian students emerged demonstrating acceptable statistical fit ($\chi^2_{(180)} = 526.21, p < .001, CFI = .926, RMSEA =$

.065). The predictive model of thriving for Asian students is presented in Figure 4 while Table 6 displays the pathway coefficients for the Asian model. The model for Latino students indicated good statistical fit ($\chi^2_{(176)} = 5298.62, p < .001, CFI = .933, RMSEA = .060$) and is shown in Figure 5 along with the corresponding pathway coefficients in Table 7.

Insert Figures 3-5 about here

Insert Tables 5-7 about here

Significance

The results of this study differ somewhat from previous findings in the literature. Previous studies implementing structural equation modeling have successfully employed multi-group analysis to explore differences across ethnic groups. As examples, recent studies exploring sense of belonging and persistence between African American and Caucasian students (Hausmann, Schofield, & Woods, 2009), worldview development in students (Bryant, 2011), and campus climate for diversity and student transition (Locks, Hurtado, Bowman, & Oseguera, 2008) analyzed data across ethnic groups. One salient difference between this study and the other multi-group structural equation modeling studies in the higher education literature was the implementation of psychological characteristics inherent in thriving. The psychological features of thriving differentiate this study from much of the literature in higher education, which is derived from the sociological foundations established by Tinto's (1975) work on student departure and Astin's (1968) work on student behavior within campus environments.

Despite the stability of the measures of thriving, psychological sense of community, spirituality, campus involvement, and faculty satisfaction and interaction in

this study, the interplay among the variables differed between ethnic groups; that is, the pathways to thriving differed by ethnicity. For all ethnic groups explored in this study, a psychological sense of community was the transcendent predictive variable in all of the measurement models, meaning a psychological sense of community explained the most variation in thriving among all students. A psychological sense of community, like thriving, transcended racial barriers in its role of predicting thriving among all ethnic groups.

For Caucasian students, the explanation of variation in a psychological sense of community was spread evenly among all the contributing variables in the model; however, spirituality was the largest single contributor to PSC for all students of color. Spirituality contributed between 35% and 49% of the variation in the psychological sense of community measure within the ethnic group samples in this study. The sheer magnitude of predictive power between spirituality and a psychological sense of community is impressive. This striking finding, that between one-third and half of the variation in a psychological sense of community among students of color on campus is explained by their sense of spirituality, supports the notion that spiritual beliefs, reliance in a power greater than the self in difficult times, and meaning-making are vital components of feeling a sense of community on campus for students of color.

It is important to note the power of spirituality in explaining a sense of community, especially as it relates to the reliance on a power greater than the self during times of difficulty, for the students of color in this study. The spirituality construct explored in this study emphasized the significance of a higher power in relation to the difficulties experienced in life, the importance of personal beliefs as an “anchor” in life,

and the personal strength derived from religious beliefs. Spirituality, as defined by these variables, explores the importance of meaning-making in the lives of students on campus. All the models for students of color affirmed the relationship of meaning-making to a psychological sense of community and to thriving. This meaning-making, or spiritual belief system, provides a lens through which students of color frame the world around them when life is difficult; it is not surprising that such reliance in a power greater than the self is a strong contributing factor to a psychological sense of community for these students of color.

The campuses involved in this study were predominantly Caucasian. Spirituality, for students of color, provides a meaningful coping mechanism when life is difficult. It is quite possible that spirituality becomes an important coping mechanism for students of color on campuses filled with students who differ from them. In their exploration of the role of spirituality among students of color, Cervantes and Parham (2005) suggested that a healthy sense of spirituality provides a source of meaning and purpose for students of color because “spirituality provides and affirms a sense of power, by acknowledging each person’s ability to transform and transcend situational circumstance in ways that are beneficial for the individual” (p.71).

When students of color on campus experience the difficulties of “fitting in” (Strayhorn, 2008a) on campus or perceive a hostile racial climate (Cokley, 2001), their spiritual center can provide a pathway to personal meaning and a positive sense of self. It should not be a surprise that meaning-making and spirituality are important building blocks to community. The problem is that academic culture has historically ignored the important role spirituality contributes to the lives of students. Astin et al. (2011b) noted

that despite the self-expressed importance of spirituality in the lives of students and faculty, the academy has historically ignored the spiritual aspect of human interaction and life; many of the environments on college campuses are not designed to foster growth of the spiritual self. Cultural factors, religious factors, and personal belief systems were demonstrated in this study to greatly inform how students of color experienced a sense of community on campus. Environments and programs on campus could easily recognize and validate the importance of spirituality among students of color. Thus, campus initiatives focused on spirituality and meaning-making could help build a psychological sense of community, thereby influencing thriving among students of color.

Spirituality and Meaning-Making as a Building Block to Healthy Community

An important implication from this study is the powerful role of spirituality in the lives of students on campus. This sense of reliance on a higher power when life is difficult is a powerful predictor for all the minority student groups explored in this study. Given the landmark study on spirituality in the academy by Astin et al. (2011b) that demonstrated the growth in student spirituality that occurs during the college years, it is imperative that campuses adopt practices that foster this important aspect in the lives of students.

Just as Frankl (1992) found that meaning in life provided motivation during the darkest of times, students in college seek *a meaning to live for* and ask their own existential questions along the journey. The search for meaning is powerful. Nash and Murray (2010) contended:

Meaning therefore helps us to make cosmos out of chaos; it gives us choice in place of chance. Most of all, it gets us out of bed in the morning and off to face life's inevitable daily mixtures of pleasure and pain. (p. xxi)

Campus student affairs practitioners, faculty, and administrators who are able to reconceptualize how they engage this vital spiritual part of the student may create new pathways for thriving, particularly among students of color. Campuses can begin by affirming the importance of the spiritual self and move toward fostering the spiritual side of the student throughout the college years.

It is also important to continue to distinguish between the spirituality explored in this study and religiosity. Although spirituality and religiosity are seemingly overlapping constructs, they have distinct meanings. Religiosity, like spirituality, "most often include(s) references to connection or relationship with a Higher Power of some kind, belief or faith in a Higher Power of some kind" (Zinnbauer et al., 1997, p. 557). However, religiosity also includes "integrating one's values and beliefs with one's behavior in daily life ... references to organized activities such as church, or attendance and performance of rituals, and commitment to organizational beliefs or dogma" (p. 557). None of the items associated with religiosity, such as lifestyle, organizational affiliation, or dogma were explored in the context of this study. As an implication, many may believe that faith-based campuses in America are adequately addressing the spiritual needs of students. However, some are meeting the spiritual needs, and many are addressing the religious needs. The perspective of spirituality explored in this study seems to precede many religious practices by first asking the question: Is there a power inside or outside this world that is greater than me? (Parks, 2000)

For students of color on college campuses, the campus must first embrace a culture that is not hostile to the exploration of spirituality. Only then would the creation and flourishing of smaller affinity groups provide the kind of safe spaces students need to explore deep meaning in life. Whether such groups are formed in the context of living spaces, such as residence halls, social gatherings, and student groups or clubs; through the work of student affairs professionals; or by the invitation of faculty, campus opportunities designed to engage the spiritual side of students must be as diverse as the student population on campus. To maximize opportunity, effort and energy should be most directed at fostering a campus culture that positively affirms the exploration of the spiritual self and then offers specific contexts in which students can explore their spirituality and meaning-making.

Limitations

Although this study illuminates distinctive pathway relationships between spirituality and thriving for students of color, limitations exist within the study. Sampling remains the greatest limitation to this study. The collection of data for this study was limited to moderately selective and selective campuses and therefore does not fully represent the American postsecondary landscape. For example, no community colleges were included in the sample, nor were non-selective colleges. No minority-serving institutions, such as Historically Black Colleges and Universities or Hispanic-Serving Institutions were included in this study. Because these institutions were not included in the data gathering, students of color on predominantly Caucasian campuses comprise the sample. Following data screening and the elimination of outliers, usable data collected from students of color met minimal thresholds of statistical power for this study. In the

future, the inclusion of more students of color would allow greater confidence in the findings.

The sample of this study is also disproportionately Caucasian, female, and under age 25 years. Although studies have indicated that the disproportionate response rate from Caucasian females in modern social science data collection is not a new phenomenon (Pike, 2008), the numbers in this study are not a representative sampling of American college students. Students included in this sample did not include adult learners of any type; thus the findings of this study should not be generalized to adult learners.

The instrument used to collect data for this project, *The Thriving Quotient*, is internally reliable (Schreiner, McIntosh et al., 2009); that is, the items are statistically consistent within the survey (Meeker & Escobar, 1998). However, little work has been published on *The Thriving Quotient* demonstrating that its measure of thriving is confirmed to actually quantify measures of human flourishing in participants; such confirmation is referred to as the concurrent validity of the instrument. It would be valuable to know that a person who is measured to be thriving by the instrument would also be considered by others in their community to be a person who is thriving.

Directions for Future Research

Research into student thriving, as defined in this study, is a relatively new area of the literature. Although others are exploring domains of flourishing in college students (see CU thrive: Students helping students, 2012; Thrive: Monitoring global progress toward improving health and wellbeing, 2010), no other research has conceptualized thriving in the same way. The current literature on thriving, as conceptualized for this

study, remains limited. Future research into student thriving will provide a better understanding of the nature of the relationship, and contributing nature, of spirituality to thriving.

Qualitative studies of thriving would positively contribute to the understanding of the role of spirituality for students who thrive. Qualitative studies of students who thrive and also of their languishing peers would add depth and richness to the current quantitative measurement of thriving. Individualizing the thriving experience through story and case study could provide greater understanding of the ways in which thriving impacts the individual during college. In particular to the exploration of spirituality, spirituality as a whole is much more multifaceted than explored by this study (Lindholm, 2013; Astin et al., 2011b). Further study of student thriving could consider other aspects of spirituality in order more thoroughly explore the contribution of spirituality to thriving.

Lastly, further studies in thriving should gather from a wider variety of institutional types (e.g., community colleges, HBCUs, non-selective) to gain a better understanding of the pathways to thriving for all students. Increased responses from minority populations would allow exploration of the nature of thriving among Native American groups and within ethnic-group exploration (e.g., Mexican-Americans, Puerto Rican Americans, Southeast Asians) in order to better understand the distinct role of spirituality in predicting thriving among students of color.

Conclusion

This paper explored the distinct ways in which student spirituality contributed to the prediction of thriving among students of color using structural equation modeling. Spirituality emerged as a significant contributor to a psychological sense of community

for students of color. As the findings of this study suggest, spirituality is an important contributor to building a psychological sense of community on campus, and is predictive of thriving for students of color. The distinct relationships between spirituality and thriving for different ethnic groups of students suggests that the nature of campus environments and programs should be nuanced in order to appropriately address the needs of students of color.

The student experience in college is complex. The time, effort, and resources put into a postsecondary education are daunting. If college decision-makers and administrators truly embrace the diversity expected to arrive on their campuses in the coming decades and provide space for all students to build a sense of community, then all students, including students of color, will find they will not only have an opportunity to survive college, but thrive while in college.

REFERENCES

- Anglin, D. M., & Wade, J. C. (2007). Racial socialization, racial identity, and Black students' adjustment to college. *Cultural Diversity and Ethnic Minority Psychology, 13*(3), 207-215.
- Arbuckle, J. L. (2010). *IBM SPSS Amos 19 User's Guide*. Retrieved from <http://www.amosdevelopment.com/download/amos.pdf>
- Astin, A. W. (1968). *The college environment*. Washington, DC: American Council on Education.
- Astin, A. W. (1977). *Four critical years: Effects of college on beliefs, attitudes, and knowledge* (1st ed.). San Francisco, CA: Jossey-Bass.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel, 25*, 297-308.
- Astin, A. W. (1993). *What matters in college? Four critical years revisited*. San Francisco, CA: Jossey-Bass.
- Astin, A. W. (2004a). Why spirituality deserves a central place in higher education. *Spirituality in Higher Education Newsletter, 1*(1).
- Astin, A. W. (2004b). Why spirituality deserves a central place in liberal education. *Liberal Education, 90*(2), 34-41.
- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011a). Assessing students' spiritual and religious qualities. *Journal of College Student Development, 52*(1), 39-61.
- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011b). *Cultivating the spirit*. San Francisco, CA: Jossey-Bass.

- Aud, S., Fox, M. A., & KewalRamani, A. (2010). *Status and trends in the education of racial and ethnic groups*. (NCES 2010-015). Washington, DC: U.S. Government Printing Office. Retrieved from <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2010015>
- Aud, S., Hussar, W., Kena, G., Bianco, K., Frohlich, L., Kemp, J., & Drake, L. (2011). *The condition of education 2011*. Washington, DC: U.S. Government Printing Office.
- Barr, R., & Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change*, 27(6), 12.
- Bean, J. P., & Eaton, S. B. (2002). A psychological model of college student retention. In J. M. Braxton (Ed.), *Reworking the student departure puzzle* (pp. 48-61). Nashville, TN : Vanderbilt UP.
- Bosacki, S. L. (2005). *The culture of classroom silence*. New York, NY: Peter Lang Publishing.
- Bowen, W. G., Chingos, M. M., & McPherson, M. S. (2009). *Crossing the finish line: Completing college at America's public universities*. Princeton, NJ: Princeton University Press.
- Braskamp, L. A., Trautvetter, L. C., & Ward, K. (2006). *Putting students first: How colleges develop students purposefully*. Bolton, MA: Anker.
- Braxton, J. M. (2000). *Reworking the student departure puzzle: New theory and research on college student retention*. Nashville, TN: Vanderbilt University Press.

- Braxton, J. M., & Hirschy, A. S. (2004). Reconceptualizing antecedents of social integration in student departure. In M. York & B. Longden (Eds.), *Retention and student success in higher education*. Berkshire, England: Open University Press.
- Braxton, J. M., Hirschy, A. S., & McClendon, S. A. (2004). Understanding and reducing college student departure. *ASHE-ERIC Higher Education Report*, 30, 3.
- Bryant, A. N. (2011). Ecumenical worldview development by gender, race, and worldview: A multiple-group analysis of model invariance. *Research in Higher Education*, 52), 460-479.
- Byrne, B. (2008). Testing for multigroup equivalence of a measuring instrument: A walk through the process. *Psicothema*, 20, 872-882.
- Byrne, B. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New York, NY: Routledge.
- Campesino, M., Belyea, M., & Schwartz, G. (2009). Spirituality and cultural identification among Latino and non-Latino college students. *Hispanic Health Care International*, 7(2), 1-13.
- Carini, R., Kuh, G. D., & Klein, S. (2006). Student engagement and student learning: Testing the linkages. *Research in Higher Education*, 47(1), 1-32.
- Carver, C. S., Scheier, M. F., Miller, C. J., & Fulford, D. (2009). Optimism. In S. J. Lopez & C. R. Snyder (Eds.), *Oxford handbook of positive psychology* (pp. 303-312). Oxford, UK: Oxford University Press.
- Carver, C. S., Scheier, M. F., & Segerstron, S. C. (2010). Optimism. *Clinical Psychology Review*, 30, 879-889.

- Cervantes, J. M., & Parham, T. A. (2005). Toward a meaningful spirituality for people of color: Lessons for the counseling practitioner. *Cultural Diversity and Ethnic Minority Psychology, 11*(1), 69-81.
- Chavis, D. M., & Pretty, G. (1999). Sense of community: Advances in measurement and application. *Journal of Community Psychology, 27*, 635-642.
- Chickering, A. W., Dalton, J., & Stamm, L. (2006). *Encouraging authenticity and spirituality in higher education*. San Francisco, CA: Jossey-Bass.
- Chickering, A. W., & Gamson, Z. F. (1987, March). Seven principles for good practice in undergraduate education. *AAHE Bulletin, 3*-7.
- Cokley, K. (2001). Gender differences among African American students in the impact of racial identity on academic psychosocial development. *Journal of College Student Development, 42*, 480-487.
- Constantine, M. G., Miville, M. L., Warren, A. K., Gainor, K. A., & Lewis-Coles, M. E. L. (2006). Religion, spirituality, and career development in African American college students: A qualitative inquiry. *Career Development Quarterly, 54*(3), 227-241.
- D'Augelli, A. R., & Hershberger, S. L. (1993). African American undergraduates on a predominantly White campus: Academic factors, social networks, and campus climate. *The Journal of Negro Education, 62*(1), 67-81.
- Dalton, J. C. (2001). Career and calling: Finding a place for the spirit in work and community. In M. A. Jablonski (Ed.), *The implications of student spirituality for student affairs practice* (Vol. New Directions for Student Services, no. 95, pp. 17-25). San Francisco, CA: Jossey-Bass.

- Dawson, C. (2010). *The crisis of western education* (2nd ed.). Washington, DC: Catholic University of America Press.
- DeNeui, D. (2003a). An investigation of first-year college students' psychological sense of community on campus. *College Student Journal*, 37(2), 224-234.
- Diener, E., Suh, E., Lucas, R., & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276-302.
- Elizondo, E. (2000). *Galilean journey: The Mexican American promise*. New York, NY: Orbis Books.
- Frankl, V. E. (1992). *Man's search for meaning*. Boston, MA: Beacon Press.
- Fuertes, J. N., Miville, M. L., Mohr, J. J., Sedlacek, W. E., & Gretchen, D. (2000). Factor structure and short form of the Miville-Guzman Universality-Diversity Scale. *Measurement & Evaluation in Counseling & Development*, 33(3), 157.
- Gefen, D., Straub, D. W., & Boudreau, M.-C. (2000). Structural equation modeling and regression: Guidelines for research practice. *Communications of the Association for Information Systems*, 4(7), 1-70.
- Gehrke, S. J. (2012). Race and pro-social involvement: Toward a more complex understanding of spiritual development in college. In A. B. Rockenback & M. J. Mayhew (Eds.) *Spirituality in college students' lives: Translating research into practice*. New York, NY: Routledge.
- Hauptman, A. M. (2007). *Strategies for improving student success in postsecondary education*. Boulder, CO: Western Interstate Commission for Higher Education.

- Hausmann, L. R. M., Ye, F., Schofield, J. W., & Woods, R. L. (2009). Sense of belonging and persistence in White and African American first-year students. *Research in Higher Education, 50*, 649-669.
- Horn, J. L., & McArdle, J. J. (1992). A practical and theoretical guide to measurement equivalence in aging research. *Experimental Aging Research, 18*, 117-144.
- Hurtado, S., & Carter, D. F. (1997). Effects of college transition and perceptions of the campus racial climate on Latino college students' sense of belonging. *Sociology of Education, 70*, 324-345.
- Jablonski, M. A. (Ed.). (2001). *The implications of student spirituality for student affairs practice*. San Francisco, CA: Jossey-Bass.
- Jagers, R. J., & Mock, L. O. (1993). Culture and social outcomes among inner-city African American children: An Afrographic exploration. *Journal of Black Psychology, 19*, 391-405.
- Jones, L., Castellanos, J., & Cole, D. (2002). Examining the ethnic minority student experience at predominantly White institutions: A case study. *Journal of Hispanic Higher Education, 1*(1), 19-39.
- Jöreskog, K. G. (1971). Simultaneous factor analysis in several populations. *Psychometrika, 36*, 409-426.
- Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health & Social Behavior, 43*(2), 207-222.
- Keyes, C. L. M., & Haidt, J. (Eds.). (2003). *Flourishing: Positive psychology and the life well-lived* (1st ed.). Washington, DC: American Psychological Association.

- Kinzie, J., & Kuh, G. D. (2004). Learning from campuses that share responsibility for student success. *About Campus*, 9(5), 2-8.
- Kinzie, J. (2012). A new vision for student success. In L. A. Schreiner, M. C. Louis, & E. D. Nelson (Eds.), *Thriving in transitions: A research-based approach to college student success* (pp. xi-xxx). Columbia, SC: University of South Carolina, National Resource Center for the First-Year Experience and Students in Transition.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford Press.
- Kuh, G. D. (2001). *The National Survey of Student Engagement: Conceptual framework and overview of psychometric properties*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- Kuh, G. D. (2003). What we're learning about student engagement from NSSE. *Change*, 35, 24-32.
- Kuh, G. D., & Hu, S. (2001). The effects of student-faculty interaction in the 1990s. *Review of Higher Education*, 24, 309-332.
- Kuh, G. D., Kinzie, J., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2007). Piecing together the student success puzzle: Research, propositions, and recommendations. *ASHE Higher Education Report*, 32, 5.
- Kuh, G. D., Kinzie, J., Schuh, J. H., Whitt, E. J., & Associates. (2005). *Student success in college: Creating conditions that matter*. San Francisco, CA: Jossey-Bass.
- Langer, E. J. (1997). *The power of mindful learning*. Reading, MA: Addison Wesley.

- Lindholm, J. A. (2013). Methodological overview of the UCLA spirituality in higher education project. In A. B. Rockenback & M. J. Mayhew (Eds.) *Spirituality in college students' lives: Translating research into practice*. New York, NY: Routledge.
- Locks, A. M., Hurtado, S., Bowman, N. A., & Oseguera, L. (2008). Extending notions of campus climate and diversity to students' transition to college. *The Review of Higher Education*, 31, 257-285.
- Lounsbury, J. W., & DeNeui, D. (1995). Psychological sense of community on campus. *College Student Journal*, 29(3), 270-277.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. New York, NY: Oxford University Press.
- McIntosh, E. (2012). *Thriving in college: The role of spirituality and psychological sense of community in students of color*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. 1035327809)
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14, 6-23.
- Meeker, W. Q., & Escobar, L. A. (1998). *Statistical methods for reliability data*. Hoboken, NJ: Wiley & Sons.
- Miller, W. R. (2004). What is human nature? Reflections from Judeo-Christian perspectives. In W. R. Miller & H. D. Delaney (Eds.), *Judeo-Christian perspectives on psychology: Human nature, motivation, and change* (pp. 11-30). Washington, DC: American Psychological Association.

- Miville, M. L., Gelso, C. J., Pannu, R. L., W., T., P., Holloway, P., & Fuertes, J. N. (1999). Appreciating similarities and valuing differences: The Miville-Guzman Universality-Diversity Scale. *Journal of Counseling Psychology*, 46, 291-307.
- Nash, R. (2008). A personal reflection on educating for meaning. *About Campus*, 13(2), 17-24.
- Nash, R. J., & Murray, M. C. (2010). *Helping college students find purpose*. San Francisco, CA: Jossey-Bass.
- National Survey of Student Engagement. (2008). *Promoting engagement for all students: The imperative to look within—Annual results 2008*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- National Survey of Student Engagement. (2009). *Assessment for improvement: Tracking student engagement over time—Annual results 2009*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- National Survey of Student Engagement. (2010). *Major differences: examining student engagement by field of study—annual results 2010*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- Nora, A., Cabrera, A., Hagedorn, L. S., & Pascarella, E. T. (1996). Differential impacts of academic and social experiences on college-related behavioral outcomes across different ethnic and gender groups at four-year institutions. *Research in Higher Education*, 37, 427-451.
- Núñez, A.-M. (2009). Latino students' transitions to college: A social and intercultural capital perspective. *Harvard Educational Review*, 79(1), 22-48.

- Pace, C. R. (1969). *College and University Environment Scales (CUES) technical manual* (2nd ed.). Princeton, NJ: Educational Testing Service.
- Pace, C. R. (1979). *Measuring outcomes of college: Fifty years of findings and recommendations for the future*. San Francisco, CA: Jossey-Bass.
- Pace, C. R. (1980). Measuring the quality of student effort. *Current Issues in Higher Education*, 2, 10-16.
- Pace, C. R. (1984). *Measuring the quality of college student experiences*. Los Angeles, CA: UCLA, Higher Education Research Institute.
- Parks, S. D. (2000). *Big questions worthy dreams: Mentoring young adults in their search for meaning, purpose, and faith*. San Francisco, CA: Jossey-Bass.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco, CA: Jossey-Bass.
- Pike, G. R. (2008). Using weighting adjustments to compensate for survey nonresponse. *Research in Higher Education*, 49, 153-171. doi: 10.1007/s11162-007-9069-0
- Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 451-502). San Diego, CA: Academic Press.
- Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, 16, 385-407.
- Pintrich, P. R., Smith, D. A. F., Garcia, T., & McKeachie, W. J. (1993). Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational Psychology Review*, 16, 385-407.

- Robbins, S. B., Lauver, K., Le, H., Langley, R., Davis, D., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulletin*, 130, 261-288.
- Rockenbach, A. B., & Mayhew, M. J. (2013). *Spirituality in college students' lives: Translating research into practice*. New York, NY: Routledge.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Scheier, M. F., Carver, C. S., & Bridges, M. W. (1994). Distinguishing optimism from neuroticism (and trait anxiety, self-mastery, and self-esteem): A reevaluation of the Life Orientation Test. *Journal of Personality and Social Psychology*, 67, 1063-1078.
- Schreiner, L. A. (2006). *[Psychological sense of community on campus index]*. raw data.
- Schreiner, L. A. (2010a). Thriving in community. *About Campus*, 15(4), 2-11.
- Schreiner, L. A. (2010b). Thriving in the classroom. *About Campus*, 15(3), 2-10.
- Schreiner, L. A. (2010c). The "Thriving Quotient": A new vision for student success. *About Campus*, 15(2), 2-10.
- Schreiner, L. A., Edens, D., & McIntosh, E. J. (2011). *The Thriving Quotient 2.0*. Manuscript submitted for publication (copy on file with author).
- Schreiner, L. A., Hulme, E., Hetzel, R., & Lopez, S. J. (2009). Positive psychology on campus. In C. R. Snyder & S. J. Lopez (Eds.), *Oxford handbook of positive psychology* (pp. 569-578). New York, NY: Oxford University Press.

- Schreiner, L. A., & Louis, M. C. (2011). The Engaged Learning Index: Implications for faculty development. *Journal of Excellence in College Teaching*, 22(1), 5-28.
- Schreiner, L. A., McIntosh, E. J., Nelson, D., & Pothoven, S. (2009). *The Thriving Quotient: Advancing the assessment of student success*. Paper presented at the Association for the Study of Higher Education, Vancouver, BC, Canada.
- Schreiner, L. A., Nelson, D., Edens, D., & McIntosh, E. J. (2011). *The Thriving Quotient: A New Vision for Student Success*. Paper presented at the National Association of Student Personnel Administrators, Philadelphia, PA.
- Schreiner, L. A., Nelson, D. (2013). The contribution of student satisfaction to persistence. *Journal of College Student Retention: Research, Theory and Practice*, 15(1), 73-111.
- Schreiner, L. A., Pothoven, S., Nelson, D., & McIntosh, E. J. (2009). *College student thriving: Predictors of success and retention*. Paper presented at the Association for the Study of Higher Education, Vancouver, BC.
- Snyder, C. R. (1995). Conceptualizing, measuring, and nurturing hope. *Journal of Counseling & Development*, 73, 355-360.
- St. John, E. P., Cabrera, A. E., Nora, A., & Asker, E. H. (2000). Economic influences on persistence reconsidered: How can finance research inform the reconceptualization of persistence models? In J. M. Braxton (Ed.), *Reworking the student departure puzzle: New theory and research on college student retention* (pp, 29-47). Nashville, TN: Vanderbilt University Press.

- Strayhorn, T. L. (2008a). Fittin' in: Do diverse interactions with peers affect sense of belonging for Black men at predominantly White institutions? *NASPA Journal*, 45(4), 501-527.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics*. Boston, MA: Pearson Education.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45, 89-125.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: The University of Chicago Press.
- Tyree, T. M. (1998). *Designing an instrument to measure socially responsible leadership using the social change model of leadership development* (Doctoral dissertation). University of Maryland, College Park, MD.
- Ullman, J. B. (2007). Structural equation modeling. In B. G. Tabachnick & L. S. Fidell (Eds.), *Using multivariate statistics* (5th ed., pp. 676-780). Boston, MA: Pearson Education.
- Walker, K. L., & Dixon, V. (2002). Spirituality and academic performance among African American college students. *Journal of Black Psychology*, 28(2), 107-121.
- Walton, G. M., & Cohen, G. L. (2007). A question of belonging: Race, social fit, and achievement. *Journal of Personality & Social Psychology*, 92(1), 82-96.
- Ying, Y.-W., Lee, P. A., Tsai, J., L., Hung, Y., Lin, M., & Wan, C. (2001). Asian American college students as model minorities: An examination of their overall competence. *Cultural Diversity and Ethnic Minority Psychology*, 7(1), 59-74.

- Zinnbauer, B. J., Pargament, K. I., & Scott, A. B. (1999). The emerging meanings of religiousness and spirituality: Problems and prospects. *Journal of Personality*, 67, 889-919.
- Zirkel, S. (2004). What will you think of me? Racial integration, peer relationships and achievement among white students and students of color. *Journal of Social Issues*, 60(1), 57-74.

Tables and Figures

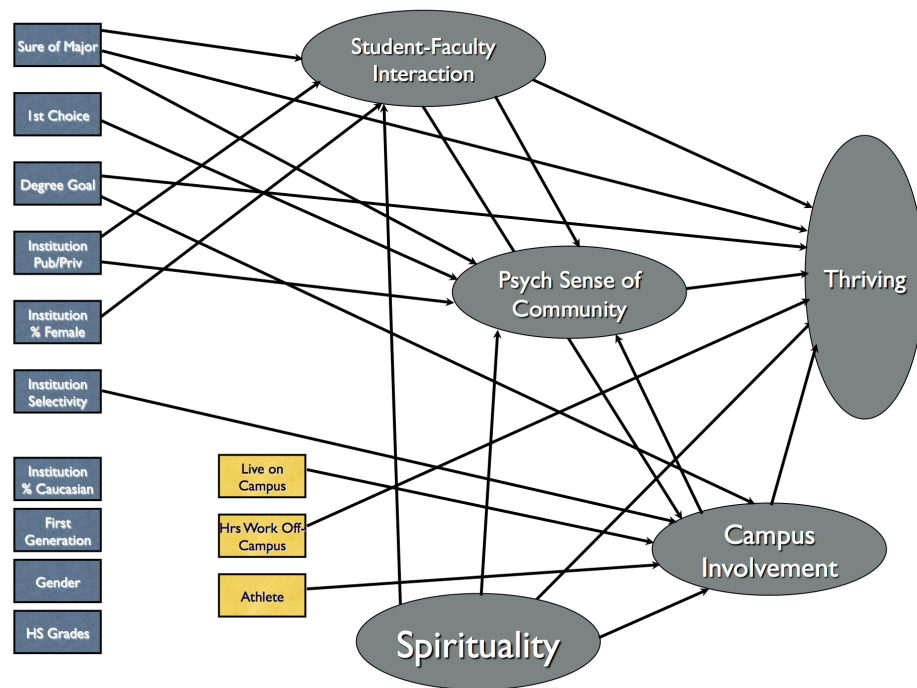


Figure 1. Hypothesized path model.

Table 1

Institutional Characteristics of Dataset (N = 59)

Variable	Mean %	SD	Total	
			N	%
Caucasians on Campus	69.25	.158		
Females on Campus	58.01	.088		
Students Living on Campus	51.86	.278		
Public Institution			13	22.03
Private Institution			46	77.97

Table 2

Demographic Characteristics of Participants (N = 7,956)

Variable	Total	
	<i>N</i>	%
Athlete		
Yes	717	9.00
No	7,239	91.00
First Generation		
Yes	1,798	22.60
No	6,158	77.40
Gender		
Female	5,645	71.00
Male	2,311	29.00
Race		
African American	433	5.40
American Indian / Alaska Native	37	0.50
Asian / Pacific Islander	457	5.70
Caucasian / White	6,188	77.80
Latino	334	4.20
Multiracial	304	3.80
International Student	62	0.80
Prefer Not to Respond	141	1.80
Type of College		
Public	3,069	38.60
Private not-for-profit	4,887	61.40

Table 3

Variable Coding

Definition	
<i>Latent variables</i>	
<i>Thriving: Academic Determination</i>	<p>Includes the following six items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). Please rate your agreement with each of the items below: I am good at managing the many responsibilities of my daily life (EM1); I am good at managing my time so that I can fit everything in that needs to be done (EM3); Even when course materials are dull and boring, I manage to keep working until I finish (ER3); I am motivated to do well in school (Hope2); I actively pursue my educational goals (Hope6); When I become confused about something I'm reading for class, I go back and try to figure it out (SR2).</p>
<i>Thriving: Diverse Citizenship</i>	<p>Includes the following six items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). Please rate your agreement with each of the items below: Knowing how a person differs from me greatly enhances our friendship (DIV1); I can best understand someone after I get to know how he/she is both similar and different from me (DIV2); I give time to making a difference for someone else (SRLS2); I have the power to make a difference in my community (SRLS3); I value opportunities that allow me to contribute to my community (SRLS4); I am willing to act for the rights of others (SRLS5).</p>
<i>Thriving: Engaged Learning</i>	<p>Includes the following five items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). Please rate your agreement with each of the items below: I feel as though I am learning things in my classes that are worthwhile to me as a person (ELI3); I can usually find ways of applying what I'm learning in class to something else in my life (ELI5); I am bored in class a lot of the time (ELI7) Item reverse scored; I find myself thinking about what I'm learning in class even when I'm not in class (ELI8); I feel energized by the ideas I'm learning in most of my classes (ELI9).</p>

(Table 3 continues)

<i>Thriving: Positive Perspective</i>	Includes the following five items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). <i>Please rate your agreement with each of the items below: When things are uncertain for me, I usually expect the best (Optimism2); I always look on the bright side of things (Optimism3); I'm optimistic about what will happen to me in the future (Optimism4); I am satisfied with my life (SWB1); The conditions of my life are excellent (SWB2).</i>
<i>Thriving: Social Connectedness</i>	Includes the following three items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). <i>Please rate your agreement with each of the items below: Other people seem to have more friends than I do (PosRel1) Item reverse scored; I often feel lonely because I have few close friends with whom to share my concerns (PosRel2) Item reverse scored; I don't have many people who want to listen when I need to talk (PosRel3) Item reverse scored.</i>
<i>Psychological Sense of Community</i>	Includes the following eight items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). <i>Please rate your agreement with each of the items below: Being a student here fills an important need in my life (PSC1); I feel like I belong here (PSC2); I have friends on this campus upon whom I can depend (PSC3); Students here know they can get help from others on campus if they are in trouble (PSC4); Students have a voice in what happens on this campus (PSC5); I feel proud of the college or university I have chosen to attend (PSC6); It's hard to make friends on this campus (PSC7) Item reverse scored; There is a strong sense of community on this campus (PSC8).</i>
<i>Spirituality</i>	Includes the following three items: (1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = somewhat agree, 5 = agree, 6 = strongly agree). <i>Please rate your agreement with each of the items below: My spiritual or religious beliefs provide me with a sense of strength when life is difficult (Spirituality1); My spiritual or religious beliefs are the foundation of my approach to life (Spirituality2); I gain spiritual strength by trusting in a higher power beyond myself (Spirituality3).</i>

(Table 3 continues)

<i>Campus Involvement</i>	Includes the following five items: (1 = never, 2 = occasionally, 3 = regularly, 4 = frequently). <i>How often do you participate in: Student organizations on campus (StuOrgs); Campus events or activities (CampusAct); Fraternities or sororities (FratSor); Community service (CommServ); Leadership responsibilities in student organizations (Leader).</i>
Observed variables	
<i>Student-Faculty Interaction</i>	Sum of the following two items: (1 = very dissatisfied, 2 = dissatisfied, 3 = somewhat dissatisfied, 4 = somewhat satisfied, 5 = satisfied, 6 = very satisfied). <i>Rate your satisfaction with each of the following aspects of your college experience: The amount of contact you have had with faculty THIS YEAR (FacInt); The quality of the interaction you have had with faculty this year (FacSat).</i>
<i>Institutional Selectivity</i>	Percent admitted
<i>Percent Caucasian</i>	Percent of total student body that is Caucasian
<i>Public Institution</i>	Coded: 1 = public, 0 = private
<i>Percent Female</i>	Percent of total student body that is female
<i>Gender</i>	Coded: 1 = female, 0 = male
<i>First Generation</i>	Coded: 1 = yes, 0 = no
<i>Live On-Campus</i>	Coded: 1 = yes, 0 = no
<i>Hours Worked Off-Campus</i>	Hours reported per week
<i>Student Athlete</i>	Coded: 1 = yes, 0 = no
<i>Major Certainty</i>	Includes the following question: (1 = very unsure, 2 = unsure, 3 = somewhat unsure, 4 = somewhat sure, 5 = sure, 6 = very sure) <i>How sure are you of your major?</i>
<i>Institution First Choice</i>	Coded: 1 = yes, 0 = no

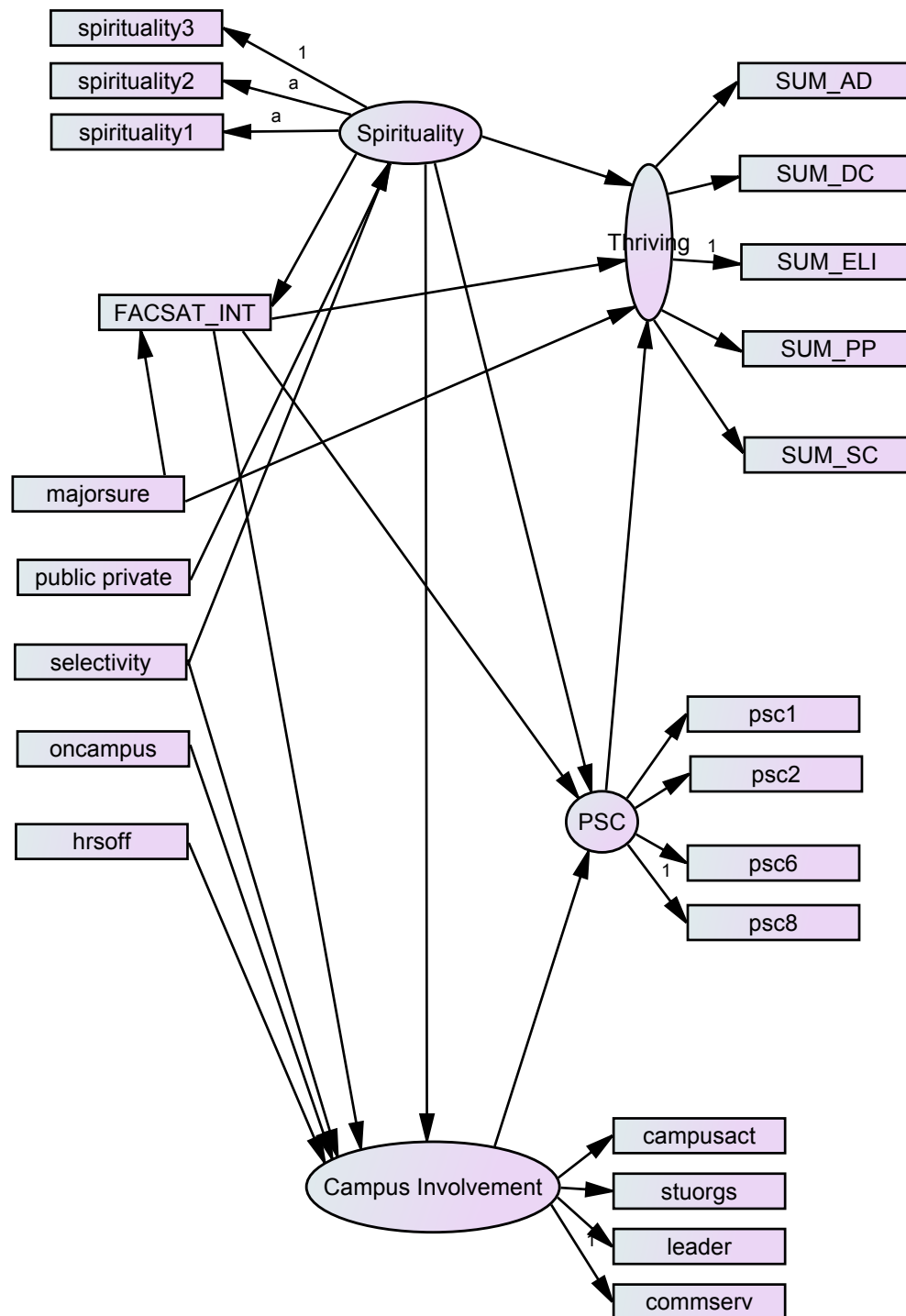


Figure 2. Unique Caucasian student structural model of Thriving.

Table 4

Variable Comparison Between Unique Ethnic Group Models

Variables	Omnibus	Caucasian	African American	Latino	Asian
Campus Involvement	Campus Involvement	Campus Involvement	Campus Involvement	Campus Involvement	Campus Involvement
percent female	percent female				percent female
PSC	PSC	PSC	PSC	PSC	PSC
Public Private	Public Private	Public Private	Public Private	Public Private	
Selectivity	Selectivity	Selectivity	Selectivity	Selectivity	Selectivity
Spirituality	Spirituality	Spirituality	Spirituality	Spirituality	Spirituality
Spirituality3	Spirituality3	Spirituality3	Spirituality3	Spirituality3	Spirituality3
SUM_AD	SUM_AD	SUM_AD	SUM_AD	SUM_AD	SUM_AD
SUM_DC	SUM_DC	SUM_DC	SUM_DC	SUM_DC	SUM_DC
SUM_ELI	SUM_ELI	SUM_ELI	SUM_ELI	SUM_ELI	SUM_ELI
SUM_PP	SUM_PP	SUM_PP	SUM_PP	SUM_PP	SUM_PP
SUM_SC	SUM_SC	SUM_SC	SUM_SC	SUM_SC	SUM_SC
Thriving	Thriving	Thriving	Thriving	Thriving	Thriving
campusact	campusact	campusact	campusact	campusact	campusact
commserv	commserv	commserv	commserv	commserv	commserv
degreegoal	degreegoal				
firstchoice	firstchoice		firstchoice		
gender	gender				
firstgen	firstgen			firstgen	
hrsoff	hrsoff	hrsoff	hrsoff		
hsgrades_R	hsgrades_R				
leader	leader	leader	leader	leader	leader
majorsure	majorsure	majorsure	majorsure		majorsure
FACSAT_INT	FACSAT_INT	FACSAT_INT	FACSAT_INT	FACSAT_INT	FACSAT_INT
oncampus	oncampus	oncampus		oncampus	
psc1_tran	psc1_tran	psc1_tran	psc1_tran	psc1_tran	psc1_tran
psc2_tran	psc2_tran	psc2_tran	psc2_tran	psc2_tran	psc2_tran
psc6_tran	psc6_tran	psc6_tran	psc6_tran	psc6_tran	psc6_tran
psc8_tran	psc8_tran	psc8_tran	psc8_tran	psc8_tran	psc8_tran
stuorgs	stuorgs	stuorgs	stuorgs	stuorgs	stuorgs
spirituality1	spirituality1	spirituality1	spirituality1	spirituality1	spirituality1
spirituality2	spirituality2	spirituality2	spirituality2	spirituality2	spirituality2

Note: Missing variables denote distinctions within each model.

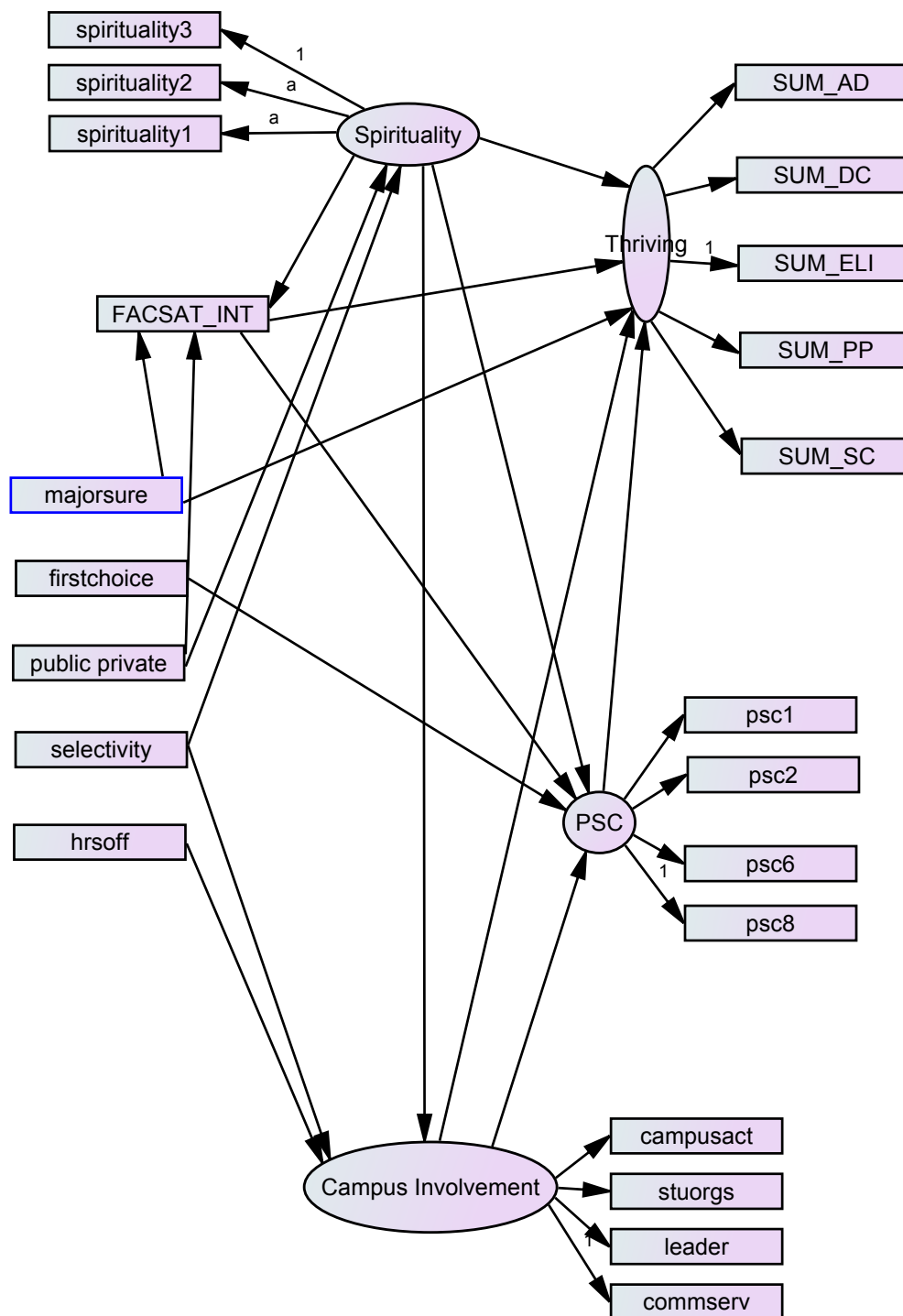


Figure 3. Unique African American student structural model of Thriving.

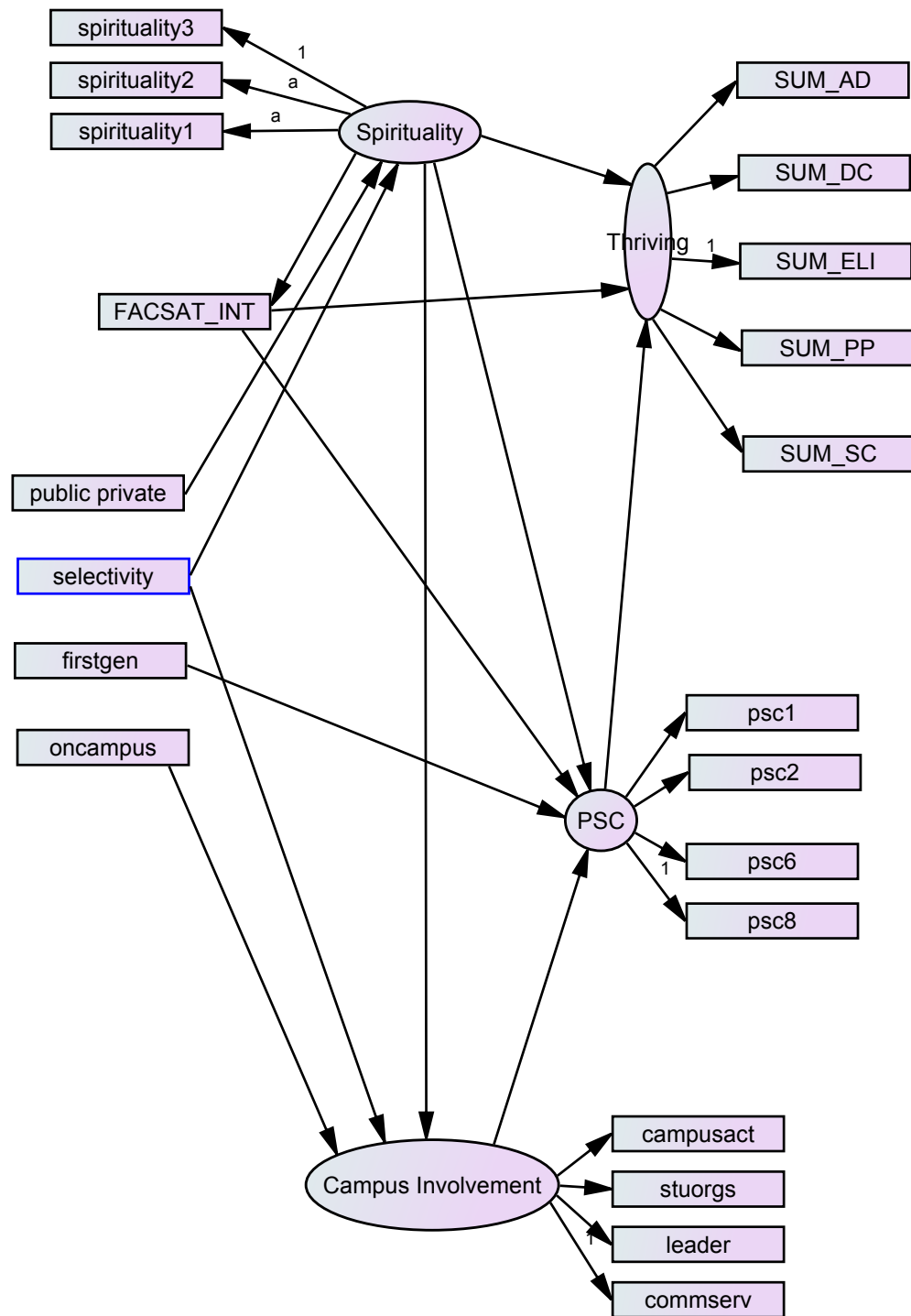


Figure 4. Unique Latino/a student structural model of Thriving.

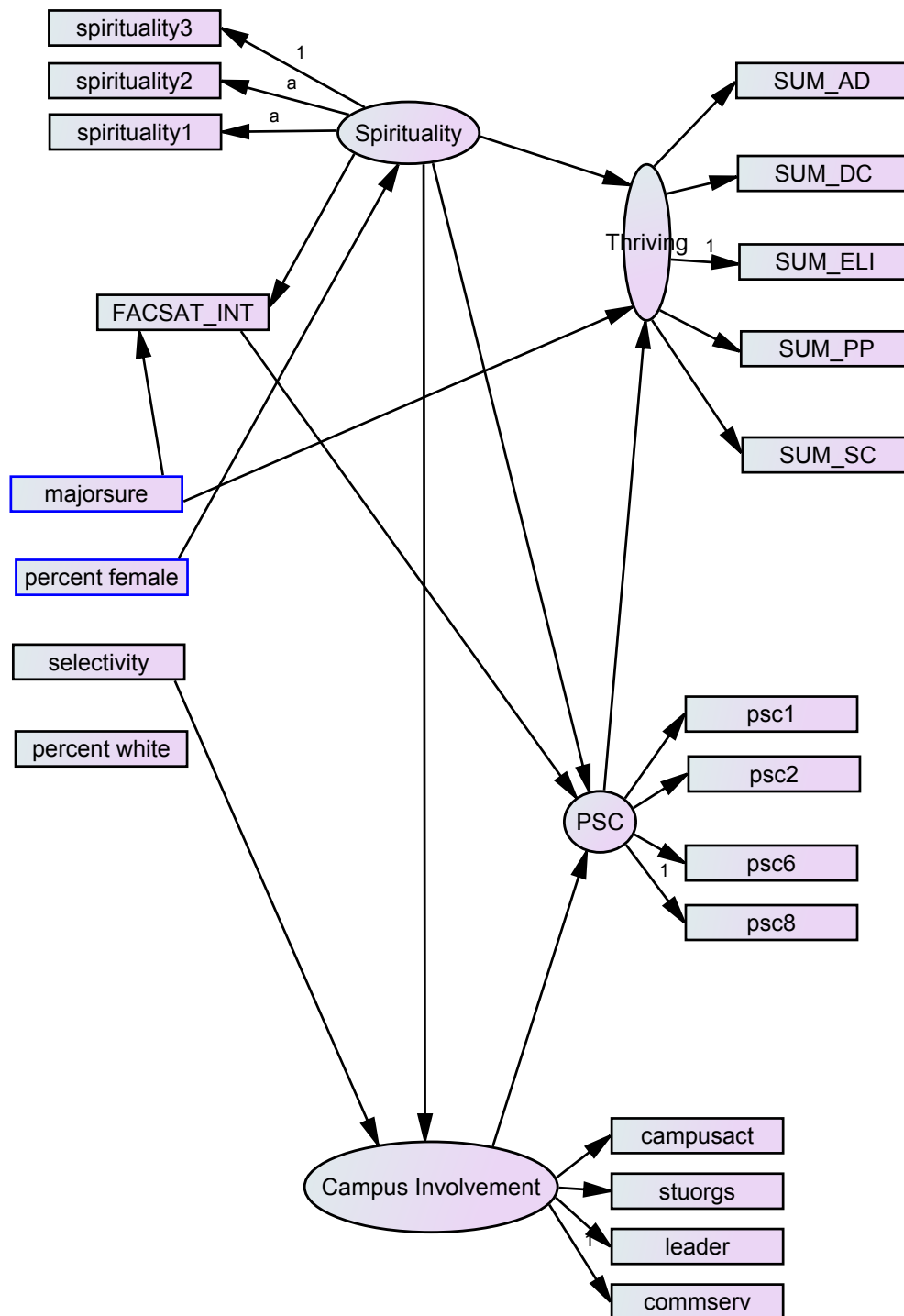


Figure 5. Unique Asian student structural model of Thriving.

Table 5

African American Model Path Coefficients and Comparative Differences in t Test for African American Model to Others

Path	SEM					t-test			
	Stand. Reg. Weight	Unstand. Reg. Coeff.	SE	CR	P	African American v. Asian	African American v. Caucasian	African American v. Latino	
Campus Involvement <--- selectivity	.151	.112	.009	12.792	***	-3.141 **	-4.534 **	.670	
Campus Involvement <--- hrsoff	-.229	-.100	.005	-18.527	***	-6.720 **	-20.460 **	-3.103 **	
PSC <--- Campus Involvement	.216	.215	.012	17.737	***	.739	-1.464	.862	
PSC <--- Spirituality	.283	.144	.006	24.397	***	-1.916	.434	-1.921	
PSC <--- firstchoice	-.149	-.257	.018	-14.124	***				
PSC <--- FACSAT_INT	.355	.148	.005	30.293	***	.097	-.768	.863	
Spirituality <--- Public Private	.182	.590	.036	16.578	***		-.271	.104	
Spirituality <--- selectivity	-.282	-.408	.016	-25.594	***		1.744	-1.590	
Spirituality3 <--- Spirituality	.943	1.000							
SUM_AD <--- Thriving	.587	.953	.023	41.605	***	-2.617 **	1.325	.356	
SUM_DC <--- Thriving	.618	.905	.021	43.179	***	-1.937	.642	.147	
SUM_ELI <--- Thriving	.638	1.000							
SUM_PP <--- Thriving	.714	1.109	.025	44.235	***	-1.517	.213	1.757	
SUM_SC <--- Thriving	.338	.478	.019	25.520	***	1.607	-.953	2.634 **	
Thriving <--- Campus Involvement	.080	.258	.033	7.718	***				
Thriving <--- PSC	.595	1.926	.056	34.653	***	-1.619	-.890	-1.913 *	
Thriving <--- Spirituality	.160	.263	.018	14.913	***	.154	.966	.278	
Thriving <--- majorsure	.143	.308	.021	14.911	***		-.909		
Thriving <--- FACSAT_INT	.200	.270	.015	18.086	***		-.044	-.040	
campusact <--- Campus Involvement	.669	1.236	.028	44.551	***	-.800	.329	-.777	
commerv <--- Campus Involvement	.491	1.000							
leader <--- Campus Involvement	.789	1.806	.041	43.574	***	.071	-.882	1.523	
FACSAT_INT <--- Public Private	.093	.368	.044	8.373	***				
FACSAT_INT <--- Spirituality	.193	.235	.014	16.977	***	-1.166	-.926	-1.683 *	
FACSAT_INT <--- majorsure	.165	.262	.017	15.320	***	.577	-.076		
psc1_tran <--- PSC	-.718	-.190	.004	-49.702	***	.000	.707	-2.062 *	
psc2_tran <--- PSC	-.807	-.225	.004	-57.486	***	-.458	.354	-2.062 *	
psc6_tran <--- PSC	-.793	-.216	.004	-56.871	***	.401	.177	-1.940	
psc8 <--- PSC	.657	1.000							
stuorgs <--- Campus Involvement	.940	2.042	.046	44.029	***	1.356	-.586	1.931	
spirituality1 <--- Spirituality	.962	.991	.005	199.092	***a	-.314	.283	-.457	
spirituality2 <--- Spirituality	.928	.991	.005	199.092	***a	-.314	.283	-.457	

Note: *p<.05, **p<.01, ***p<.001, a=parameter constraints equalized

Table 6

Asian Model Path Coefficients and Comparative Differences in t Test for Asian Model to Others

Path	SEM					t-test			
	Stand. Reg. Weight	Unstand. Reg. Coeff.	SE	CR	P	Asian v. African American	Asian v. Caucasian	Asian v. Latino	
Campus Involvement <--- selectivity	.312	.250	.043	5.780 ***		3.141 **	1.744	2.438 *	
Campus Involvement <--- Spirituality	.186	.111	.031	3.595 ***		6.720 **	1.101	1.786	
PSC <--- Campus Involvement	.204	.182	.043	4.276 ***		-.739	-1.327	.193	
PSC <--- Spirituality	.371	.197	.027	7.358 ***		1.916	2.044 *	-.415	
PSC <--- FACSAT_INT	.358	.146	.020	7.467 ***		-.097	-.383	.625	
Spirituality <--- percent female	.358	4.970	.631	7.879 ***					
spirituality3 <--- Spirituality	.921	1.000							
SUM_AD <--- Thriving	.689	1.242	.108	11.444 ***		2.617 **	3.013 **	2.363 *	
SUM_DC <--- Thriving	.659	1.101	.099	11.095 ***		1.937	2.125 *	1.642	
SUM_ELI <--- Thriving	.633	1.000							
SUM_PP <--- Thriving	.746	1.292	.118	10.956 ***		1.517	1.575	2.333 *	
SUM_SC <--- Thriving	.240	.349	.078	4.489 ***		-1.607	-1.931	.551	
Thriving <--- PSC	.756	2.344	.252	9.301 ***		1.619	1.320	-.319	
Thriving <--- Spirituality	.152	.251	.076	3.322 ***		-.154	.178	.142	
campusact <--- Campus Involvement	.760	1.326	.109	12.136 ***		.800	.915	-.013	
commerserv <--- Campus Involvement	.538	1.000							
leader <--- Campus Involvement	.859	1.795	.150	11.965 ***		-.071	-.430	1.051	
FACSAT_INT <--- Spirituality	.236	.308	.061	5.085 ***		1.166	.860	-.621	
FACSAT_INT <--- majorsure	.145	.221	.069	3.224 .001		-.577	-.599		
psc1_tran <--- PSC	-.732	-.190	.017	-11.075 ***		.000	.229	-1.456	
psc2_tran <--- PSC	-.781	-.217	.017	-12.806 ***		.458	.573	-1.114	
psc6_tran <--- PSC	-.797	-.223	.017	-12.962 ***		-.401	-.344	-1.671	
psc8 <--- PSC	.620	1.000							
stuorgs <--- Campus Involvement	.923	1.828	.151	12.127 ***		-1.356	-1.593	.461	
spirituality1 <--- Spirituality	.940	.999	.025	39.621 ***a		.314	.392	-.133	
spirituality2 <--- Spirituality	.921	.999	.025	39.621 ***a		.314	.392	-.133	

Note: *p<.05, **p<.01, ***p<.001, a=parameter constraints equalized

Table 7

Latino Model Path Coefficients and Comparative Differences in t Test for Latino Model to Others

Path	SEM				t-test		
	Stand. Reg. Weight	Unstand. Reg. Coeff.	SE	CR	P	Latino v. African American	Latino v. Asian
Campus Involvement <--- selectivity	.067	.072	.059	1.208	.227	2.905 **	-2.438 *
Campus Involvement <--- Spirituality	.032	.022	.039	.558	.577	3.103 **	-1.786
Campus Involvement <--- oncampus	-.322	-.597	.112	-5.311	***		
PSC <--- Campus Involvement	.185	.169	.052	3.250	.001	-.862	-.193
PSC <--- Spirituality	.342	.216	.037	5.779	***	1.921	.415
PSC <--- firstgen	-.083	-.153	.095	-1.607	.108	-1.611	-1.611
PSC <--- FACSAT_INT	.287	.126	.025	5.078	***	-.863	-.625
Spirituality <--- Public Private	.796	.573	.159	3.605	***	-.104	
Spirituality <--- selectivity	-.176	-.272	.084	-3.241	.001	1.590	2.072 *
spirituality3 <--- Spirituality	.927	1.000					
SUM_AD <--- Thriving	.680	.923	.081	11.347	***	-.356	-2.363 *
SUM_DC <--- Thriving	.673	.893	.079	11.251	***	-.147	-1.642
SUM_EL1 <--- Thriving	.750	1.000					
SUM_PP <--- Thriving	.757	.950	.087	10.964	***	-1.757	-2.333 *
SUM_SC <--- Thriving	.258	.292	.068	4.270	***	-2.634 **	-.551
Thriving <--- PSC	.692	2.463	.275	8.947	***	1.913	.319
Thriving <--- Spirituality	.103	.232	.110	2.118	.034	-.278	-.142
Thriving <--- FACSAT_INT	.175	.273	.073	3.743	***	.040	3.740 **
campusact <--- Campus Involvement	.806	1.328	.115	11.526	***	.777	.013
commiserv <--- Campus Involvement	.564	1.000					
leader <--- Campus Involvement	.842	1.575	.146	10.776	***	-1.523	-1.051
FACSAT_INT <--- Spirituality	.257	.370	.079	4.707	***	1.683	.621
psc1_tran <--- PSC	-.675	-.156	.016	-9.889	***	2.062 *	1.456
psc2_tran <--- PSC	-.799	-.191	.016	-12.345	***	2.062 *	1.114
psc6_tran <--- PSC	-.744	-.184	.016	-11.715	***	1.940	1.671
psc8 <--- PSC	.692	1.000					
stuorgs <--- Campus Involvement	.930	1.728	.156	11.064	***	-1.931	-.461
spirituality1 <--- Spirituality	.952	1.004	.028	35.931	***a	.457	.133
spirituality2 <--- Spirituality	.923	1.004	.028	35.931	***a	.457	.133

Note: *p<.05, **p<.01, ***p<.001, a=parameter constraints equalized