

Serving the Developmental and Learning Needs of the 21st Century Diverse College Student Population: A Review of Literature

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Abstract

The seminal theories that describe human development during the college years were developed several decades ago using research conducted with homogenous groups of college students that resemble the demographic characteristics of 21st Century college students in very few ways. The current population is more diverse in terms of race, ethnicity, gender, age, socioeconomic status, academic preparation, immigration status, and disability than the college student population has ever been in the history of higher education. This review highlights recent research on how the current diverse population of college students interacts within the campus environment. The review considers the current research on how college affects 21st century college students, and how students develop in terms of career, cognitive, and psychological development during the college years. Also important to consider is the kind of social and cultural capital that diverse college students bring to college that helps them achieve academic and career success.

Keywords: diverse college students, student development, career development, cognitive development, psychological wellbeing, retention, social capital

1. Introduction

1.1 Student Development Theory

The seminal theorists in the field of college student development proposed theories that fall into several types of theoretical models of student development and change during the college years. They include stage based theories in psychosocial, cognitive and biosocial realms of development that expand on the study of child and adolescent development (Berger, 2012), as well as personality typologies, person-environment interaction theories, and theories based on the desired outcomes of college attendance (Pascarella & Terenzini, 1991; 2005). They provide an important theoretical bridge between the theories that describe child and adolescent development, and those of adult development and aging (Love & Guthrie, 1999).

The first group of college student development theories are the psychosocial theories, and they propose to describe how college students interact interpersonally and intrapersonally (Skipper, 2005). These theories examine development from the perspective of how emotions, attitudes, and values develop during the college years, and also include career development and relationship theories (Evans, Forney, Guido, Patton, & Renn, 2009). Arthur Chickering, expanding on his own work from the 1960's worked with another researcher to develop and propose areas of competence for college student development including interpersonal, intrapersonal, intellectual, integrity, and identity in which college students strive to gain competence and maturity (Chickering & Reisser, 1993).

The second group, theories of college student's cognitive development consider changes in how students evolve in their understanding and interpretation of their world and experiences (Skipper, 2005), and the beliefs, values, and the underlying assumptions that inform them (Chickering & Reisser, 1993). They are also interested in explaining the development of critical thinking, reasoning and analysis, and construction of meaning (Evans et al., 2009; Polkosnik & Winston, 1989). William G. Perry Jr. and a group of fellow researchers at Harvard proposed the first theory of intellectual development in college students (Evans et al., 1998; Love & Guthrie, 1999). However, based on the fact that Perry's entire theory was developed by studying undergraduates at

Harvard and Radcliffe in the 1950's and 1960's, and the inherent limitations of that data set, additional researchers proposed theories that built on Perry's assumptions (Love & Guthrie, 1999; Skipper, 2005). Three major theories resulted from the work that followed Perry (Skipper, 2005). They include two gender based theories of cognitive growth and meaning making, developed by several different researchers, as well as a theory of how college students learn to make judgments (Evans et al., 2009). Also following Perry's work were theories of moral reasoning proposed by Kohlberg (1976) and Gilligan (1982).

Typological theories are common in career development research. For example, Holland's typology focuses on matching career interests across six personality and work-style types (Erford & Crickett, 2012). The Myers Briggs Type indicator is the gold standard in career counseling and development (Kennedy & Kennedy, 2004). There is also a typological theory of career readiness that can be useful in working with students (Akos, Konold, & Niles, 2004). In addition, research has been conducted on a typology that better describes women's career development (O'Neil, Bilimoria, & Saatcioglu, 2004). Given the fact that women now outnumber men in higher education enrollment, this research is certainly relevant to understanding career development of the current college student population.

Finally, Pascarella and Terenzini (1991, 2005) proposed theories examining the college student experience in terms of how attending college impacts students that are excellent lenses through which to view the changes that students experience while attending college. Rather than studying individual models of development, these theories are based on research of the interplay between the student, and the college, and the outcomes of that interaction (Skipper, 2005). College impact models allow student affairs administrators to make data informed decisions that remove obstacles to student retention, success, completion, and graduation (Skipper, 2005). Astin's (1984) and Tinto (1996, 1997, 1998) proposed models of student engagement, retention, and attrition are examples of college impact theories. However, these models again were developed using research based on traditional aged, upper middle-class, first-time to college students at four-year colleges and universities (Woolsley, 2011). More recently, researchers have examined the importance of social support systems and unique cultural resources that diverse students already have when they arrive at college (Campa, 2013).

1.2 Student Development for the 21st Century College Student Population

Since the development of the theories described above, extensive research has continued to examine the development of college students as they progress toward their graduation, and transition to adulthood. In addition, the population of the U.S. in general has become much more diverse, with projections for that trend to continue (Franklin, 2014). These changes are reflected in an increasingly diverse college population as well (Cheng, Kwan, & Sevig, 2013). The racial, ethnic, age, socio-economic status, academic preparation, immigration status, gender and sexual orientation of college students has changed dramatically since many of these theories of college student development were developed. This drives the need to conduct new studies that reexamine earlier research from the perspectives and experience of diverse college students. The following sections describe current research on the development and needs of diverse college students from multiple perspectives, including career development, cognitive development, and mental health needs. The review will then examine research about how the social and cultural resources that diverse college students bring with them to the college experience can help them become successful students.

2. Career Development

Colleges and universities with a student-centered focus are interested in promoting the holistic development of students, including helping them meet developmental milestones in psychosocial, cognitive, identity, wellbeing, and social competence (Arnold, Lu, & Armstrong, 2012; Shek, 2013). Career selection is an important psychosocial milestone that usually occurs at this stage of life (Arnold et al., 2012). In fact, in terms of psychosocial development, one of the key aspects of the college experience is career exploration and selection (Osborn, Howard, & Leirier, 2007). Thus, much of the literature on student experiences during college examines career development. Career development is also closely entwined with academic achievement, and is one of the key factors that influence academic success in college (Strauser, O'Sullivan, & Wong, 2012). This is due to the fact that it is linked to academic success and future career success (Strauser et al., 2012). A study of sixty-five diverse students from a variety of academic majors who were of traditional college-age ranging from 18 to 22 years old indicated that overall the factors of work style and engagement on campus influence effort in academic work, but more strongly for women (Strauser et al., 2012). However, work personality more strongly influenced academic effort for male students, while academic engagement more strongly influenced academic effort for

female students, and not at all for male students (Strauser et al., 2012). This has important implications for designing for curricular and co-curricular programming to promote diverse college students' career development.

2.1 Career Development and Classroom Learning

For example, often students are provided with experiential learning opportunities that are designed to reinforce their classroom learning (Esters & Retallick, 2013). The impact of experiential learning opportunities paired with core academic courses on key career variables was the focus of recent research. Esters and Retallick (2013) used the term science with practice to describe the structure of this particular experiential learning opportunity, and they used a theoretical framework of constructivism for their study. The independent variables were belief in ability to make career-related choices, commitment to the values of a particular profession, and ability to make independent career choices, (Esters & Retallick, 2013). They found that for the sixty-two participants the experiential learning program impacted the two former independent variables under consideration, but not the latter, which they termed career maturity (Esters & Retallick, 2013).

Another type of experiential learning is service learning (Wang & Rogers, 2007). A research study of the impact of service learning found somewhat different results when looking at similar career variables. Specifically, students who took courses that required participation in service learning, namely teaching high school students about career choices, had improved skills in career decision-making versus students who did not (Coulter-Kern, Coulter-Kern, Schenkel, Walker, & Fogle, 2013).

Regardless of the loftier goal of education for the sake of learning, most students enter college with eventual employment as a goal. College and university administrators can help students achieve this important developmental milestone, and avoid career indecision by providing career development classes for students, whether credit-bearing or non-credit. Furthermore, developing a career identity, and making a career choice positively impact retention and graduation rates (Sandler, 2000). This is especially true for students with academic challenges. To demonstrate this, Schnorr and Ware (2001) conducted a quantitative study that used several reliable and valid career development measures to examine the career maturity of students who were failing core academic subjects. The focus of the research was to study relationships between beliefs and maturity in terms of career, as well as, participation in a career development course and career maturity (Schnorr & Ware, 2001). The results indicated that the strongest influence on career maturity was the belief that obstacles can be overcome, and this in turn was influenced by having specific career goals with plans for reaching those goals (Schnorr & Ware, 2001). In addition, comparisons to peers can have a negative influence on career development, thus environments where differences are not considered deficits, especially for students of color, more positively impact career development, and academic outcomes for at-risk students (Schnorr & Ware, 2001).

In another study of college students' career development, Osborn, Howard, and Leirer (2007) confirmed the positive impact of an instructional intervention in reducing indecision and dysfunctional thinking about career choice among a group of students representing a diverse set of racial, ethnic, and gender characteristics. The conclusion was that if college administrators are held accountable to state and federal funding agencies for the outcomes of their increasingly diverse student bodies, implementing a career course is an effective way to help students make progress toward completing this important psychosocial task (Osborn et al., 2007).

Specifically looking at the career learning needs of diverse students, Gasser (2013) studied seventy-two first-year college students representing a diverse sample of White, Asian, and African American students in terms of their self-appraisals of their career, social, and academic abilities in addition to their educational goals, and whether the former influenced the latter. White students had higher self-appraisals than any other group, and this influenced educational aspirations (Gasser, 2013). Recommendations included that career interventions be employed to increase the self-appraisals of diverse college students in order to expand their educational and career aspirations (Gasser, 2013).

Yet another group that is contributing to the increasing diversity on college campuses is students with disabilities (Papay & Griffin, 2013). As with other diverse groups on campus, attention to their career development needs can positively impact retention and graduation outcomes (White, 2013). In a study of career development for students with disabilities, an instrument that was originally designed to measure career interests and academic persistence in students from underrepresented racial and ethnic groups, in particular for careers in the science, technology, engineering, and mathematics (STEM) fields was adapted to measure the same constructs for students with disabilities (White, 2013). The results indicated that student retention and persistence in majors in the STEM fields were most strongly influenced by their early experiences in these subjects (White, 2013). The researcher recommended developing pre-college programs with a focus on the STEM fields specifically for

students with disabilities (White, 2013). This could be incorporated into the high school transition process, which is an established part of the K-12 curriculum for students with disabilities (Hamblet, 2014).

2.2 Career Counseling Techniques for Diverse College Students

Career counseling approaches whether in class, or in the career center, and not just exposure and opportunity to participate in career counseling are important opportunities to provide for a diverse student body (Grier-Reed, Skaar, & Conkel-Ziebell, 2009). College administrators and faculty need to consider diverse theoretical and conceptual approaches when implementing career development coursework and programming (Grier-Reed et al., 2009). One study examined how career-oriented instruction employing a constructivist approach created positive outcomes for academically at-risk students representing several aspects of diversity (Grier-Reed et al., 2009). Seventy-five diverse college students participated in the study, which determined that the constructivist career development approach was successful in helping this population increase their belief in their ability to make career decisions, and reduce dysfunctional thinking, specifically in terms of self-defeating thoughts, and the resulting confusion and anxiety about making career commitments (Grier-Reed et al., 2009).

Another approach called narrative counseling has also been the subject of studies with diverse college students from underprepared backgrounds. Hughes, Gibbons, and Mynatt (2013) used case study methodology to study the effectiveness of narrative career counseling with diverse populations. One problem that academically underprepared students struggle to overcome is the need for remediation in English and mathematics, the gatekeeping courses. The need for academic remediation for underprepared students causes them to have increased time in college, and as a result they have greater financial concerns and stresses (Hughes et al., 2013). These additional demands placed on underprepared students in college can also spill over into career development concerns and issues (Hughes et al., 2013). The study demonstrated that narrative career counseling can help reduce these stresses, and promote positive college and career outcomes by allowing the students to construct meaning in the career counseling process, and by focusing on the positive growth and development of the whole person (Hughes et al., 2013). Traditional career counseling processes and techniques rely on inventories and ideas that were developed based on research with wealthy White students at elite colleges, and often do not provide the support needed by underprepared students (Athanasou, 2011). Narrative career counseling can help address personal and academic issues that can inhibit students, and affect career decision-making self-efficacy (Hughes et al., 2013).

2.3 The Importance of Family in the Career Development of Diverse College Students

A final aspect of developing career counseling interventions for diverse college students that is important to consider is the involvement of family in the career selection process. Raque-Bogdan, Klingaman, Martin, and Lucas (2013) examined the relationship between parental support and career barriers among a group of diverse freshmen students using social cognitive career theory as a theoretical lens. It's effectiveness for working with college students stems from the fact that it focuses on both individual and contextual variables, such as parental support, which make it a good predictor of several important outcomes for college students, namely academic interests, career choices, persistence, and success (Raque-Bogdan et al., 2013). Interestingly, among all groups, women perceived greater career barriers than men, but displayed better coping to overcome these barriers, and higher levels of emotional support from parents (Raque-Bogdan et al., 2013). However, for both men and women from all groups, levels of parent support were a good predictor of the differences in perceived barriers to career and academic choices (Raque-Bogdan et al., 2013). The importance of parental support as a social and cultural resource in college success was emphasized by the results of this study.

In another quantitative cross-cultural study, Yun-Jeong and Kelly (2013) examined the relationship of positive outlook, intrinsic motivation, and family interaction to vocational identity development for over three hundred college students from two countries, one representing Western cultural values, and one representing Eastern cultural values. Positive outlook, or optimism was an important cross-cultural factor, and intrinsic motivation was partially responsible for optimism leading to the development of a vocational identity for both groups (Yun-Jeong & Kelly, 2013). However, only in American culture did family have an impact on development of a vocational identity (Yun-Jeong & Kelly, 2013). Lack of family support can dampen optimism and inhibit the development of traits that lead to different career paths, and in western cultures, families support individualism, which can create optimism about multiple career pathways (Yun-Jeong & Kelly, 2013). Eastern cultures value the collective over the individual, thus creating more control over career choice and limiting individual autonomy (Yun-Jeong & Kelly, 2013). Families can be supportive of the career development in both cultures, but western cultures more often support individual choice of career, whereas, eastern cultures believe career choice should be a family

decision (Yun-Jeong & Kelly, 2013). Again, the results have important implications for college career counseling, which tends to develop interventions and programming from a western cultural perspective (Athanasou, 2011). These types of interventions may not be a fit for students from collectivist cultures. Further, it is important that these cultural distinctions in career development not be viewed from a deficit perspective.

2.4 Social Cognitive Career Theory

The solution is a model of career counseling that values differences and considers multiple perspectives. For several decades, social cognitive career theory has provided the most effective model for delivering career counseling to diverse populations including people from different racial and ethnic backgrounds; women; people with different sexual orientations; and people with intellectual, developmental, or physical disabilities (Brown & Lent, 1996). Originally developed by Lent, Brown and Hackett (1994) it is ideal for diverse populations because it is individualized; allows people to take personal responsibility for their own career and academic choices; and takes into account contextual variables such as culture, relationships, self-efficacy, and opportunities for learning that may influence career choice in both positive and negative ways, thus allowing career counselors to work with clients to identify supports and barriers (Lent, Brown, & Hackett, 2000). Social cognitive career theory works well for the college population because it focuses on increasing both persistence in educational and career pathways, as well as cognitive development and growth throughout the process (Lent et al., 1994).

3. Cognitive Development

Of course, cognitive development in college is one of the major areas of growth for students that researchers are interested in studying. The diversification of American higher education has sparked much research on the similarities and differences among, and between different groups of students attending college. For example, Kugelmass and Ready (2011) conducted a large scale study using hierarchical linear modeling to analyze data from thirty-five thousand college seniors at two hundred and fifty different institutions to test for significance in cognitive gains, disaggregating the sample by race and ethnicity. The analysis determined that African American students who have academic gaps at the beginning of college widen those gaps as they progress through college (Kugelmass & Ready, 2011). Hispanic students may enter college with significant academic gaps, but demonstrate the ability to gain knowledge at the same rate as other students (Kugelmass & Ready, 2011). However, these academic gaps and gains, or lack thereof are less a function of race or ethnicity, and more a function of contextual factors and institutional characteristics (Kugelmass & Ready, 2011). For example, the gaps are fewer and the gains greater at institutions that enroll more diverse populations of students (Kugelmass & Ready, 2011).

This finding highlights the fact that diversity is beneficial to the cognitive development of all students. Diversity experiences have been identified as important to the development of more complex thought processes, and critical thinking in a large sample of college students (Pascarella, Martin, Hanson, Trolan, Gillig, & Blaich, 2014). During the college years, immersion in diversity experiences contributes to greater increases in cognitive development than other college experiences (Pascarella et al., 2014). In fact, the only time that increased racial and ethnic diversity does not benefit the cognitive development of diverse students in college is when much larger numbers of the students enrolled lack the academic preparation for college (Kugelmass & Ready, 2011). This has important implications for faculty members and administrators who must design curriculum and co-curricular learning opportunities at institutions with open admissions, given the fact that a larger majority of students enrolled will be academically underprepared. The goal is not just to have diverse students impact the cognitive development of other students, but to show significant cognitive gains themselves as a result of attending college.

3.1 Cognitive Development in the Classroom

Student-faculty interactions in the classroom are the first place researchers look to study and measure cognitive development in college. In one study, researchers examined the impact of student-faculty-interaction in terms of classroom learning activities, instructor evaluation practices, instructional rigor, and appreciation for diversity of approaches to learning on cognitive development for a diverse group of college freshman (Cruce, Wolniak, Siefert, & Pascarella, 2006). The study was large scale involving survey data from two highly respected and valid surveys of both student and faculty engagement (Cruce et al., 2006). The statistical model considered how best practices in teaching affected different groups based on a variety of factors including student demographics and characteristics prior to entering colleges, organizational structures, academic experiences, and non-academic experiences (Cruce et al., 2006). Not unexpectedly, the results were different for different groups of students. Employing best practices in teaching, and increasing student-faculty interaction impacted cognitive development in reading comprehension and mathematics for females, and in literacy for students of color (Cruce et al., 2006).

Interaction with peers impacted reading comprehensions gains for males, and challenge and high expectations significantly impacted male students' literacy gains (Cruce et al., 2006).

Further research on student-faculty interaction sought to extend Piaget's theory of development to college-aged students by examining several variables that could impact differences in cognition among college students during classes (Ewing, Foster, & Whittington, 2011). The variables included the cognitive level of the classroom interactions, amount of lecture in class, and engagement in the classroom, while cognition was defined using Bloom's Taxonomy (Ewing et al., 2011). Results indicated that two variables accounted for the majority of the differences in level of student cognition namely, the level of cognition at which the professor interacted with the students, and amount of the class material that was delivered via lecture (Ewing et al., 2011). Professors in the study were delivering instruction at the lowest level of Bloom's taxonomy, and this impacted the amount, and level of student cognition in class (Ewing et al., 2011). Including more opportunities for active learning versus straight lecture in class sessions would increase student engagement and cognition allowing professors to deliver instruction at the higher formal operations level of Piaget's theory (Ewing et al., 2011).

A specific type of active learning, simulation was the focus of a study in nursing education conducted by Secomb, McKenna and Smith (2012). The hypothesis was that increased cognitive abilities can be developed through the use of simulation, and that the result would be improvement in decision making abilities in clinical situations (Secomb et al., 2012). Computer-based and other types of simulation require a large investment of time and money to develop, thus evidence of its impact is needed in order for educators to determine its effectiveness. To represent the diversity of students in most nursing programs, the sample of students included those whose first language was not English, and those who were native English speakers (Secomb et al., 2012). The results following participation in two simulation activities showed no significant differences in clinical decision-making abilities for any of the students with the exception of non-native English speakers (Secomb et al., 2012). The results warrant further study on simulation as an active learning technique, but also have important implications for designing instruction based on the needs of an increasingly diverse college student population, including students who are second language learners (Secomb et al., 2012). There is also a need to examine the cognitive development of diverse learners in professional preparation programs such as nursing, and teacher education. These are two career fields that are popular among female immigrant students, as they are professions that are considered culturally acceptable for young women.

Cognitive development in college is also entwined with career choice, due to the fact that students must select an academic major that is aligned with their chosen career pathway. Thus, cognitive development in the academic major is an important avenue of research. In a large study of student-faculty interaction, utilizing data from forty-three thousand students studying in one hundred and nineteen different academic majors at nine colleges and universities, student-faculty interaction did not impact students uniformly across disciplines (Kim & Sax, 2011). The study determined that the level of cognitive skill development of college students that results from interacting in meaningful ways with faculty varied by academic major, including the fact that the departmental climate also played a role (Kim & Sax, 2011). While both general student-faculty interaction, and working on research with faculty did generally positively impact cognitive development of college students, research engagement had a higher impact on cognitive development, and this was true for students from diverse backgrounds as well (Kim & Sax, 2011). Connecting this to the results of previous research by Ewing, Foster, and Whittington (2011) discussed earlier in this review, active learning is most likely the key factor to increased cognitive development when participating with faculty on research. Regarding the departmental climate impact noted in this study, supportive academic environments had the most impact on cognitive development (Kim & Sax, 2011). This means specifically, open communication with faculty, timely and constructive feedback, being treated fairly and equitably, well-organized programs, and focus on critical thinking skills (Kim & Sax, 2011).

The key finding of the positive impact of supportive departmental environments is interesting given the national priority to train more students in the STEM disciplines due to the persistent shortages of American students motivated and prepared to pursue studies and careers in these fields. It is important to understand what factors promote success for college students in these STEM academic majors. Soldner, Rowan-Kenyon, Kurotsuchi Inkelas, Garvey, and Robbins, (2012) examined students involved in a STEM focused, residential learning community in which groups of students all studying the same majors are provided curricular and co-curricular programming as a cohort to support their academic interest. The study included more than fifty-two hundred male and female students across a large geographic area of the United States with students who were all in their second semester of college drawing participants from diverse and non-diverse colleges and universities (Soldner et al., 2012). The study found that these types of structures for delivering instruction via academic program

partnered with residential co-curricular support provided two things that were essential for increasing students' academic self-efficacy in the STEM disciplines, namely a high level of student-faculty interaction, and a living environment that was supportive of students needs in the discipline (Soldner et al., 2012).

3.2 Development of Moral Reasoning

One important aspect of cognitive development in college is the development of moral reasoning. In fact, it is one of the express purposes of a college education (King & Mayhew, 2005). This review has discussed the role of college in preparing students for careers, and transition to adulthood. However, more specifically those are roles that college students transition into in order to be productive, contributing, citizens in a democracy (King & Mayhew, 2005). In fact, the early researchers in the field of college student development studied moral development almost exclusively (Gilligan, 1982; Kohlberg, 1976; Love & Guthrie, 1999). Thus, examining the more recent research on how students develop moral reasoning abilities in college warrants discussion.

One recent study examined moral reasoning in freshmen students using Kohlberg's theory as a guide (Mayhew, 2012). This time, the factor under examination was not formal moral education, but type of institution (Mayhew, 2012). Forty-five hundred students who were diverse in terms of gender, race, and ethnicity at a total of nineteen two and four-year institutions were included in the study (Mayhew, 2012). Results indicated that moral reasoning growth can be achieved at all institutional types, but that the academic activities required to achieve this growth need to vary according to institutional culture and campus demographics (Mayhew, 2012). Meaning, moral reasoning growth is related to, but not entirely dependent upon the type of college attended, and individual student characteristics (Mayhew, 2012). No significant difference could be found between the development of moral reasoning ability at liberal arts colleges and research institutions, but both of those types did show differences when compared to community colleges (Mayhew, 2012). In addition, students who functioned morally at higher levels tended to view college as an education rather than simply as career training (Mayhew, 2012). The college experience also expands women's ability to reason at a higher level than it does men's, and White students showed more gains than students of color (Mayhew, 2012). However, since precollege academic preparation was also a factor, these results may be more due to opportunity for precollege academic preparation than they are to actual differences due to race (Mayhew, 2012).

These results bring the issue of pre-college experiences to the forefront. In addition, to pre-college academic preparation, other contextual variables influence development in the moral realm. Increasing numbers of students in today's college population come from divorced families (Collin, 2014). In a very recently published study of college students, freshman whose parents are divorced initially score lower on measures of moral judgment development than did freshman with parents who remained married (Collin, 2014). However, when the same students were measured one year later, sophomores with divorced parents showed greater gains and conducted moral analysis at higher levels than did sophomores with intact families (Collin, 2014). The researcher hypothesized that these differences were due to ability to weather life changes (Collin, 2014). The transition to college represents a significant life change in young adulthood. Many students are living on their own, away from their families for the first time. According to this study, the experiences of changing households due to divorce in childhood, better prepares students for the significant life changes experienced in the first year of college (Collin, 2014). Thus, although freshmen with divorced parents initially measure lower on measures of moral reasoning development, they are better prepared to weather life changes early in the college experience, and eventually make gains in moral reasoning development that are greater than their counterparts with married parents (Collin, 2014).

4. Psychological and Mental Health Needs

The transition to college is an important milestone in adult development that carries with it the potential for stress that can lead to psychological problems (Burriss, Brechting, Salsman, & Carlson, 2009). Some students may come to college with problems related to their childhood and family of origin. Experiencing parental divorce is just one that has been mentioned in this review. Camara & Calveti (2012) found that college students who had experienced abandonment, emotional deprivation, family financial and personal failures, physical abuse, and codependence were much more likely to struggle with mental health problems in college. In addition, certain parenting styles experienced in childhood can also impact the development of mental health problems in college (Barton & Kirtley, 2012). Specifically, certain maternal parenting practices lead to increased mental health problems in female students (Barton & Kirtley, 2012). These maternal parenting styles may prevent young women from learning stress management techniques to help deal with the typical problems encountered during the transition to college (Barton & Kirtley, 2012). In fact, maladaptive coping is the main factor that can be used

to predict the most common mental health problems of college students (Mahmoud, Staten, Hall, & Lennie, 2012).

4.1 Most Common Psychological Problems for College Students

Reviewing the college impact theories, along with the other areas of college student development discussed in this review can help to highlight four common areas of concern that can cause or exacerbate mental health problems in college students including anxiety and depression, substance use and abuse, academic concerns, and career decision concerns (Kitzrow, 2003; Hess & Tracey, 2013). Overall, among the current population of college students one of the most common psychological problems that they experience is high levels of stress, and this problem is increasing (Bland, 2012). Research has been conducted to identify the lifestyle factors and strategies for coping that help college students effectively manage stress, and identify which groups of students have high and low stress tolerance (Bland, 2012).

First, one large empirical study found that optimism, valuing healthy lifestyles, and religiosity positively impacted college students' mental health (Burriss et al., 2009). Conversely, multiple sexual partners and spirituality were associated with poor psychological wellbeing in the same study (Burriss et al., 2009). In a second study that examined college students and stress tolerance, a total of ten lifestyle and coping factors out of a possible twenty nine were identified as impacting college student stress in positive and negative ways (Bland, 2012). Feeling supported was identified as a protective factor, while nine other lifestyle and coping factors identified were risk factors for low stress tolerance (Bland, 2012). The conclusion was that current college students are using ineffective coping strategies, and making lifestyle choices that put them at high risk for psychological problems related to stress (Bland, 2012).

In addition, the demographic shifts within the college student population, discussed throughout this review also include increasing diversity in terms of types and incidence of psychological problems among the college student population (Hartley, 2012; Kitzrow, 2003). The population of people who are of traditional age for college attendance displays high rates of psychological disorders whether they are enrolled in college or not (Hayes, Soo Jeong, Castonguay, Locke, McAleavey, & Nordberg, 2011). In addition, given that the most common psychological problem faced by college students stems from psychological stress, research has focused on developing validated tools for college counselors to help students reduce stress and increase resilience (Hartley, 2012).

4.2 College Students and Help Seeking Behavior

Encouraging a diverse student body to seek treatment can be a difficult issue to resolve for college counseling centers experiencing an increasing demand for services (Joyce & Weibelzahl, 2011). An analysis of data from over sixty different colleges and universities determined that diversity in terms of race and ethnicity among counseling center staff encourages students of color who need help to seek psychological services at higher rates than in non-diverse counseling centers (Hayes et al., 2011). In the same study, the incidence of mental health problems was not greater in any one racial or ethnic group, however, it took higher levels of distress to compel students of color to seek services for their concerns, and intake interviews revealed that they had much less access to support networks than did other students (Hayes et al., 2011). College students from diverse backgrounds also more commonly have a history of mental health issues prior to entering college (Hayes et al., 2011).

The roadblocks to increasing help-seeking among college students may be perception and attitudes. Hess and Tracey (2013) hypothesized that attitudes would have the most influence on students seeking treatment for anxiety and depression, substance use and abuse, and career decision concerns. However, the data from their large sample indicated that attitudes, as well as perceived norms for seeking help, and perceived control of the situation all influenced help seeking behavior equally in all three areas of concern (Hess & Tracey, 2013). This was the case even though the stigma associated with, and the perceived severity of each area of concern differed greatly (Hess & Tracey, 2013).

In a study of help seeking behavior, college students' attitudes and perceptions also influenced help seeking behavior. Lowinger (2012) conducted survey research to assess students' attitudes toward alcohol and drug abuse, and their openness to seeking help for such problems. Although both are issues of concern on college campuses today, results showed that students consider drug abuse a much more serious problem than alcohol use, and were much less willing to seek treatment for alcohol problems (Lowinger, 2012). In addition, male students overall perceived both alcohol and drug problems much less seriously than female students (Lowinger, 2012).

Women students overall also perceived substance abuse problems as more problematic in interfering with effective daily life functioning, and as a result, were more willing to seek treatment for substance abuse related problems (Lowinger, 2012).

In another study the development of symptoms associated with stress, anxiety, and depression were linked to ineffective coping skills (Mahmoud, Staten, Hall, & Lennie, 2012). This is important since stress, anxiety, and depression are high incidence disorders among the college population (Hayes et al., 2011). If college counseling centers are not staffed or funded to handle the increase in these disorders, they contribute to increases in substance abuse and disorders on their campuses (Lo, Monge, Howell, & Cheng, 2013). Campus mental health outreach programs that teach effective coping for the ups and downs of college life can go a long way in preventing the stress, anxiety, and depression issues that most commonly plague students, as well as reduce substance abuse, which is often used as an ineffective method of coping with these problems (Mahmoud et al., 2012).

4.3 Promoting the Positive Mental Health of College Students

As alluded to in the previous section, prevention programming is a large part of the mental health work on college campuses. Psychological problems increase attrition and underscore the importance of psychological services to achieving the institution's overall enrollment, retention, and completion goals (Hartley, 2012). The current structure of higher education ties funding to performance, giving counseling centers a role to play in student success outcomes (Bishop, 2006; Salzer, 2012). In addition to individual and group treatment, college and university counseling centers can also provide programs that promote positive mental health, resilience, and emotional intelligence among the student body (Hartley, 2012; Leedy & Smith, 2012).

Taking positive psychological development one step further, consider that emotional intelligence has been identified as important and necessary for developing effective and satisfying adult relationships; both personal and professional, as well as handling life's ups and downs (Goleman, 1995). Emotional intelligence is specifically defined as awareness and understanding of individual and others emotional states (Goleman, 1995). Developing emotional intelligence can not only promote positive mental health, but it can contribute to the goals of promoting students' cognitive and career development (Potgieter & Coetzee, 2013; Yuki & Masuo, 2013). Researchers have examined the institutions' ability to promote increased emotional intelligence in freshmen students (Leedy & Smith, 2012). The courses in which students were enrolled at the time were first-year experience courses organized around academic interest, and had a strong focus on diversity and cultural competence (Leedy & Smith, 2012). This first-year learning community concept has also been examined in terms of its impact on students' cognitive development (Rocconi, 2011). However, the results of this study indicated that the course format also helped contribute to increases in emotional intelligence for some students (Leedy & Smith, 2012). Specifically, the course design in the study helped women students make significant gains in emotional intelligence over the semester, but male students' levels of emotional intelligence remained the same throughout the term (Leedy & Smith, 2012). The researchers theorized that this was due to the fact that the curriculum used a very intrapersonal style of instruction, and men tend to prefer more impersonal instructional delivery modes (Leedy & Smith, 2012).

In another instructional intervention designed to promote positive mental health of diverse college students, one university implemented a leadership course that focused on developing the students' psychosocial development and mental health including resilience, emotional balance, interpersonal skills, and self-awareness (Shek, 2013). Focus groups conducted with the students who participated in the course indicated that the course was successful in achieving its goals due to the fact that students felt that the course promoted their positive identity development and life outlook (Shek, 2013). The quantitative analysis for the study indicated that the changes in students in terms of positive psychosocial development and mental health were significant compared to the control group (Shek, 2013).

Finally, diverse college students' positive mental health can also be promoted by relying on their social and cultural capital (Sartorius, 2003). In this case, social capital refers to supportive social relationships (Sartorius, 2003). Students from varied cultural backgrounds will possess different levels of social capital (McKenzie, Whitley, & Weich, 2002). Therefore, programming and interventions that rely on social capital can promote positive mental health, and the effective treatment of mental health issues can help to build social capital (Sartorius, 2003). The key is to view social and cultural capital as an asset that diverse college students possess when they enter college, and that can continue to be developed while they are in college.

5. Social and Cultural Capital

As the college student population began to become more diverse in terms of gender, ethnicity, race, age, socioeconomic status, history of family college attendance, and academic preparation, many institutions and scholars viewed their college success and outcomes from a deficit model (Feldman & Tyson, 2014). However, diverse college students bring numerous resources to the college experience derived from their social and cultural contexts that can be leveraged to support collegiate academic success (Barbatis, 2010; Grayson, 2011; Wells, 2008). These cultural and social resources in terms of linguistic resources, parental involvement, aspirational and achievement focus to name a few are powerful success resources for students from diverse backgrounds (Grayson, 2011; Yosso, 2005). Social capital can also provide diverse college students with resources that can help them overcome significant obstacles to college completion (Hallett, 2013; Wells, 2008; Yosso, 2005).

Even when students do not have prior generations of family members from which to draw information about navigating college, they are in possession of important information in the form of social and cultural capital that will provide positive support structures for their college success (Grayson, 2011; Wells, 2008). The difference is that their forms of capital are accessed from different aspects of family and community life than that of students whose parents attended college (Grayson, 2011). Whereas, traditional college students may increase their academic success in college by increasing their involvement on campus, a form of social capital, first-generation and other diverse student groups find social and cultural resources through continued involvement with their families and communities while in college (Grayson, 2011). These social and cultural resources can help them overcome other obstacles to college success including lack of academic preparation (Barbatis, 2010).

5.1 Social and Cultural Capital and Success for Diverse College Students

This phenomenon has been documented in numerous research studies. For example, Barbatis (2010) conducted a study that examined the similarities and differences between diverse college students who had been successful with those from similar underprepared, ethnically and racially diverse backgrounds who had not been successful, in order to define college success from the perspective of students who have been traditionally underrepresented among the college student population. Results of the study indicated that successful students from diverse and underprepared backgrounds had developed personal, academic and cultural characteristics, as well as socio-cultural resources, and support networks both at home, and in college that contributed to their academic success (Barbatis, 2010).

Interestingly, another research study determined that social and cultural capital increases success to a greater degree, and creates more powerful support systems at four-year institutions than it does at community colleges (Wells, 2008). The researcher hypothesized that due to the open access design of community colleges, the playing field is more level at community colleges, thus students need to rely less on social and cultural capital at these types of institutions than at others (Wells, 2008). This is an important distinction to note given the fact that community college enrollments account for just under half of all students participating in higher education in the nation, and a large portion of the country's diverse, first-generation, and under-resourced students are enrolled in community colleges (Mullin, 2012). However, this institutional enrollment picture may also be a function of social and cultural capital.

In another study, Hill, Bregman and Andrade (2014) determined that while all students of color at urban high schools had access to social capital for college, how they accessed it was associated with significant differences in which institutional types they focused on as their first choice. Students, who relied more on peer information than other types of social capital, were more likely to choose less selective colleges and universities as their first enrollment choice (Hill et al., 2014). Nonetheless, validating the presence of, and access to social and cultural capital as an important factor in college enrollment for diverse, underrepresented, under-resourced, and first-generation students is important to acknowledge and leverage.

The case for the positive impact of social and cultural resources holds true with many different diverse groups of college students. For example, cultural capital resources have been demonstrated to be a factor in the success of international students (Grayson, 2011). In addition, one group that faces significant obstacles to college completion is students who are undocumented immigrants (Nienhusser, 2014). As this population continues to reach college age, and embark on the journey through college, a dream that motivated most of their parents to bring them to the U.S., they face significant challenges and obstacles not faced by other first-generation, diverse college students due to their legal status (Hallett, 2013). Undocumented students are among the most marginalized of students on college campuses (Hallett, 2013; Nienhusser, 2014). However, Hallett (2013) demonstrated that undocumented students also achieve college success by harnessing the power of social and cultural capital

developed through establishing peer groups on campus to positively impact their success. In the study, students explained that the obstacles they faced, including limited financial resources, restricted access, and tensions about legal status were all overcome through an informal, underground peer network that provided significant social capital for the students (Hallett, 2013).

Another consideration is the possibility of varying levels of social and cultural resources that diverse, first-generation, and underprepared college students bring with them to the college experience (Collier & Morgan, 2008). A qualitative analysis of both faculty and student experiences identified variance in social and cultural resources was a factor in helping traditional and first-generation students understand faculty expectations, and successful student behavior (Collier & Morgan, 2008). These different levels of understanding occurred in spite of the fact that faculty believed their course expectations were very clear and explicit (Collier & Morgan, 2008). In fact, more recent research has determined that with all things being equal in terms of meeting college entrance requirements, social and cultural capital does account for differences in first year academic outcomes for diverse groups of college students (Grayson, 2011). The results of these studies prompt the question, can social and cultural resources be further enhanced or developed as students prepare to enter college, or once they are in attendance?

5.2 Development of Social and Cultural Capital for Diverse College Students

The Advancement via Individual Determination (AVID) program is delivered in high schools to targeted underrepresented groups providing rigorous academic programming, family involvement, academic support, and community development in preparation for college admission (Bernhardt, 2013). A longitudinal study of the program's effectiveness indicated that it was successful in increasing social and cultural capital that promoted low-income, first-generation, and underrepresented high school students access to, and success in college (Bernhardt, 2013).

However, the question remains, do well-designed college preparatory programs actually build social and cultural capital, or do they merely tap into already existing, but often undervalued cultural resources? Liou, Antrop-Gonzales, and Cooper (2009) conducted survey research to study how social and cultural capital contributes to college success for Latino students. The researchers hypothesized that Latino communities already contain this type of cultural capital, and it is school programs that devalue and lack support for these identities among Latino students that inhibit their college enrollment and success (Liou, Antrop-Gonzalez, & Cooper, 2009). After surveying students, families, and school counselors they determined that the social and cultural capital for college success does exist within Latino communities and families, and that school environments support and nurture that form of capital actually promotes a college-going culture (Liou et al., 2009). School environments and staff that look at Latino students and families from a deficit perspective do not build effective college-going environments among Latino students (Liou et al., 2009).

How might this deficit view of diverse, underprepared and resourced, non-traditional students invade institutional culture, and how can administrators and faculty members who are committed to diversity change it? This is especially important in majors where women and minorities have been traditionally underrepresented, such as STEM fields. Stolle-McCallister (2011) undertook a longitudinal analysis of the a summer bridge program's effectiveness in building cultural capital among talented African American students interested in studying in the STEM fields. The design of summer bridge programs eases the transition to college, and increases academic success for targeted groups through skill-building and academic preparation (Doerr, Årlebäck, & Costello Staniec, 2014). The data in the Stolle-McCallister (2011) study revealed three specific programmatic aspects of the summer bridge program that were particularly effective at helping students build social and cultural capital. Those key elements were academic, social and professional support (Stolle-McCallister, 2011). Most importantly, the program helped the students build a strong sense of community that remained intact as they transitioned into their college programs (Stolle-McCallister, 2011). Drawing from community resources is an important aspect of the benefits of social capital (Collier & Morgan, 2008).

In another examination of success in STEM programs, Ovink and Veazey (2011) used case study methodology to examine aspects of undergraduate science programs that are effective at building cultural capital among diverse, underrepresented college students. Barriers to academic success are identified as psychological, social, and lack of institutional support (Bowman, 2014; Ovink & Veazey, 2011). Results indicated that success comes from not only providing academic support for students, but academic networking, socialization, and skill development are key aspects to building social and cultural capital of minority students in the STEM fields (Ovink & Veazey, 2011). Much of the success was achieved by participating in research with faculty members, a practice that has also been

shown effective in building cognitive abilities, and positively impacting retention (Hunter, Laursen & Seymour; 2007; Ovink & Veazey, 2011).

6. Conclusion

6.1 Implications for Future Practice

There are several important implications of recent research on student development of the diverse college student population for administrators and faculty members in higher education. The first is that in developing curricular and co-curricular programming for today's college student population, we must shift from looking at diverse, first-generation, and under-resourced college students with a deficit mindset simply because they do not possess the characteristics of typical college students of previous generations in terms of race, gender, socioeconomic status, academic preparation, and enrollment patterns. We must view the current diverse college student population from an asset mindset specifically in terms of the assets they do bring to college, and capitalize on those assets to support their success. This includes acknowledging the importance, and continued presence of family members in the college experience for diverse college students.

The shift to a focus on assets also takes into consideration contextual factors that impact the success of today's diverse college students. Institutional type matters and not all institutions impact students in the same way (Kugelmass & Ready, 2011; Mayhew, 2012; Wells, 2008). In addition, interaction with a diverse college student population positively impacts the development of all students (Pascarella et al., 2014). Thus, as practitioners we must take the college structure, culture, demographics, and resources into account, as much as the student's resources and characteristics when planning to meet the college's enrollment, retention, and graduation goals. One sector of higher education that was not examined in the literature in terms of its impact on diverse college student success was online instruction. This is an important absence to note as fully online programs in higher education are growing rapidly (Allen & Seaman, 2006). In order to fully understand the diverse college student experience, the impact of the interaction between diverse college students and online instruction needs to be more closely examined.

As a matter of practice, this review also highlights the important role faculty members can have in student development. Of course, involvement with faculty impacts students' academic development, and student affairs practitioners have always viewed them in that important role. In addition, this review has highlighted recent research that notes the important role faculty can play in the development of diverse students beyond just the cognitive in terms of positive wellbeing, psychosocial, and career development through classroom instruction and interventions (Leedy & Smith, 2012; Osborn et al, 2007; Shek, 2013; Stolle-McCallister, 2011).

Finally, it is apparent from this review, that it is critical that the concept of individual consideration be at the center of all discussions of student success. Diverse college students, while newer to the college student population, are still individuals. Each one comes to college with a unique set of experiences, expectations, and needs. In order to become more student-centered, and asset-minded, diverse college students need to be viewed as individuals with unique qualities that can enhance the college environment, as well as their own college experience, rather than just challenges for administrators to manage and overcome.

6.2 Implications for Future Research

Researchers need to continue to examine the college success outcomes of diverse college students, and how those experiences are enhanced by student-centered campuses that promote the holistic development of all students. In spite of the recent research that was reviewed in this paper, there is still an abundance of research that looks at diverse college students from a deficit perspective, and a dearth of research that examines the same students from an asset perspective.

In addition, this review of recent research has highlighted that the interaction between the college and the diverse, first-generation, under-resourced college student differs from that of traditional student of the past. However, there were also several indications that the among the diverse college student population there are differences in college experiences and outcomes for different groups. For example, undocumented immigrant students faced different challenges than other diverse college students (Hallett, 2013). Male and female diverse college students also displayed different outcomes as a result of their classroom and career development experiences (Cruce et al., 2006; Leedy & Smith, 2012; Strauser et al., 2012). Further, there were indications that male and female diverse college students may experience the psychological stress associated with college differently (Barton & Kirtley, 2012; Lowinger, 2012). Diverse college student outcomes also differed by academic major (Kim & Sax, 2011). These findings highlight the need to conduct additional research that disaggregates the diverse student

experiential and outcome data by several different demographics including gender, immigration status, race, major, and other possible differentiations in order to present a true and nuanced picture of the impact of the college experience for diverse college students, and the impact their increasing numbers have on our institutions of higher education.

This new and emerging research could all lead to new models of student success being developed from tracking the success of diverse college students in today's institutions of higher education, including those that are delivered fully online. In addition, this research could generate new college impact models that take into account the positive outcomes that come from the interaction of diverse college students on college and university campuses of all types. Research on the roles that family members can play in any college success model would also add important new information to the literature base in student development theory that has not previously entered the discussion.

Further, research on effective career development and counseling interventions needs to continue. This review has demonstrated that social cognitive career theory appears to have been the most effective theoretical model for counseling diverse clients for several decades (Lent, Brown, & Hackett; 1994). However, new research that can effectively connect the current diverse college student population to emerging career fields would be important in order for the diversity we are experiencing on campuses to transition to the workplace, where diverse college students can bring their considerable assets, and the knowledge and skills they learned in college to contribute to our society in new and exciting ways.

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