Measuring the Impact of a Residential Learning Community on the Mental Health and Well-Being of Art Students in Higher Education

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ABSTRACT

College students are experiencing mental health concerns at an alarming rate. Art students are a particularly vulnerable sub-population, as artists appear to be more susceptible to mental illness than the general population. Many students do not seek assistance through conventional methods designed by colleges and universities to address their mental health; therefore, colleges and universities must look for alternate methods of supporting students. This quantitative study explores the impact a residential college program (RCP) with an emphasis on engaged learning has on art student mental health and well-being.
CHAPTER I
INTRODUCTION

Today’s college students are experiencing mental health concerns at an alarming rate. In the 2009 College Counseling Center Directors survey, “93.4% of directors report that the recent trend toward greater numbers of students with severe psychological problems continues to be true on their campuses” (Gallagher, 2009, p. 6). The National Alliance of Mental Illness (2010) reported that 75% of individuals with lifetime cases of mental illness experienced the first symptoms of their illness before the age of 24. Many of these illnesses are diagnosed during the traditional college years (18-24), which can be challenging for students, parents and the college community. Kadison and Digeronimo (2004) inform parents that:

If your son or daughter is in college, the chances are almost one in two that he or she will become depressed to the point of being unable to function; one in two that he or she will have regular episodes of binge drinking, with the resulting significant risk of dangerous consequences such as sexual assault and car accidents; and one in ten that he or she will seriously consider suicide. (p. 1)

College student mental health concerns have far reaching consequences for individual students, the campus community, and faculty and administrators. Mental health issues can have a negative impact on academic performance, retention, graduation and overall student success. Sharkin (2006) notes, “mental health problems can interfere with class attendance, concentration, memory, motivation, persistence, and student habits, to the point where functioning is significantly impaired” (p. 10). College students
with mental health problems often complete fewer credit hours compared to students without these concerns, which also has a negative effect on retention and graduation (Eisenberg, Golberstein, & Hunt, 2009). Students with poor psychological health are also found to have lower GPA’s than students with more positive mental health (Trice, Holland, &, Gagne, 2000). Data from the spring 2011 National College Health Assessment (NCHA) survey of more than 109,000 students at 129 institutions of higher education indicate that college students often experience significant mental health concerns that have negative consequence on the academic environment (American College Health Association, 2011). Respondents indicated that stress (25%), sleep difficulties (18%), anxiety (16%) and depression (10%) negatively impacted their academic performance (American College Health Association, 2011). Students also reported that in the previous 12 months, 84% felt overwhelmed, 78% were exhausted (not from physical activity), 46% experienced overwhelming anxiety, and 28% felt so depressed it was difficult to function (American College Health Association, 2011). Binge drinking, defined as having five or more drinks per sitting for men and 4 or more drinks for women, has also been shown to have significant negative effects on college students (Wechsler & Nelson, 2001). These data illustrate the urgent need for colleges and universities to develop effective interventions to respond to the college student mental health crises, because students who experience good mental health are able to more fully engage in the curricular and co-curricular programs on campus and have an increased capacity to be successful.

In addition to the effect college student mental health has on academic success,
retention and graduation, it also brings significant other concerns for colleges and universities. A number of public tragedies during the first decade of the 21st century have brought attention to the issue of college student mental health. These issues have caused concern over campus safety, legal liability issues and have created public relations crises at a number of institutions of higher education.

On April 14, 2002, Elizabeth Shin, a 19-year old student at the Massachusetts Institute of Technology (MIT), died after lighting herself on fire in her residence hall room. Her family sued the university, alleging that MIT staff members should have prevented the tragedy since they were aware she had been hospitalized twice for suicidal ideation and suicide attempts while she was on campus. The MIT settled with her family out of court for an undisclosed sum of money (Hoover, 2006).

On April 16, 2007, Virginia Polytechnic Institute (Virginia Tech) student Seung-Hui Cho killed 32 people on campus before committing suicide. Virginia Tech officials were unaware that Cho had been diagnosed with a mental illness prior to coming to campus. Individuals on campus were aware, however, that he had been ordered by a judge to seek mental health treatment after being accused of stalking two female students at Virginia Tech. In addition, a faculty member notified school officials that she was concerned about the violence in Cho’s writing (Virginia Tech Review Panel, 2007). Criticism has been directed toward Virginia Tech for its response to Cho’s behavior and the lack of coordination and information sharing across campus units. The Virginia Tech Review Panel Report (2007) noted that the failure of campus officials to communicate with each other prevented them from understanding the full-extent of Cho’s mental health
concerns. “No one knew all the information and no one connected all the dots” (Virginia Tech Review Panel Report, 2007, p. 2).

Individuals at Virginia Tech also had significant misunderstandings and confusion about federal privacy laws. The Virginia Tech Review Panel (2007) reported that university officials explained their failures to communicate with one another or with Cho’s parents by noting their belief that such communications are prohibited by the federal laws governing the privacy of health and education records. In reality, federal laws and their state counterparts afford ample leeway to share information in potentially dangerous situations. (p. 2)

On February 14, 2008, another campus tragedy occurred when Steven Kazmierczak, a former student at Northern Illinois University (NIU) killed five students and wounded numerous others before shooting and killing himself in an attack on the NIU campus. Kazmierczak had a history of mental illness dating back to elementary school and he had been institutionalized prior to attending college (Cohen, 2010). However, NIU campus officials were unaware of any previous history of mental health concerns. Kazmierczak did not present any behavioral problems while he was a student. Northern Illinois University’s internal report concluded that Kazmierczak was mentally ill with a multiplicity of aggravating personality traits that contributed to his heinous crime. Psychological profiles offered by leading experts presented opinions to this effect. While his motive may never be fully understood, these experts believe that Kazmierczak’s decision to stop taking medicines for mental illness, in some measure, led to his criminal actions. (NIU, 2010, p. xvi)

On January 8, 2011 Jared Loughner, a student who had withdrawn from Pima Community College in September 2010, allegedly shot U.S. Representative Gabrielle Giffords at a political event. He then opened fire on the crowd attending the event,
killing six people and wounding 13 others. Lacey and Kovaleski (January 12, 2011) reported that Loughner was disruptive during his time as a student at Pima Community College and that he frequently displayed inappropriate behavior including, “[h]e sang to himself in the library. He spoke out of turn. And in an act the college finally decided merited his suspension, he made a bizarre posting on YouTube linking the college to genocide and the torture of students” (January 12, 2011). Loughner was suspended from campus in September 2010 and was informed that he could not return to the college without a letter from a mental health provider indicating that he did not pose a risk to himself or the community. He withdrew from the college after he received notification of the suspension (Lacey & Kovaleski, 2011).

In order to help students reach their full academic and personal potential, positively impact persistence and graduation rates, address campus safety and limit institutional liability, colleges and universities have developed interventions to respond to the mental health needs of students. This chapter describes the foundation for this research project, which explores the impact a residential learning community emphasizing engaged learning has on college student mental health. I explain the background of the study, which includes a description of current initiatives developed to intervene in the campus mental health crisis; the purpose of this study, focusing attention on the specific mental health needs of student artists; the questions that guide this research; and the significance of this study.
Background of the Study

It is important to address college student mental health concerns through both curricular and co-curricular interventions. In a recent survey, college counseling center directors reported an increase in both the number of students utilizing their services as well as the severity of students’ psychological problems (Gallagher, 2009). For college students “suicide is likely the second leading cause of death, with an estimated 1,088 suicides occurring on campuses each year” (Suicide Prevention Resource Center, 2004). However, students in distress often do not utilize mental health services on campus. It is estimated that fewer than 20% of students who commit suicide were current or former clients of a college or university counseling center (Gallagher, 2009). In the Healthy Minds Study (Eisenberg & Nelson, 2009), fewer than 50% of college students who screened positive for depression or anxiety sought treatment for their illness (Center for Student Studies, 2009). Blanco et al. (2008) found that fewer than 25% of students with mental disorders participated in treatment. This means a large proportion of college students with serious mental health concerns are not receiving assistance through conventional methods designed by colleges and universities to address their mental health. Given campus safety concerns and the impact of student mental health issues on the academic experience and success of students, colleges and universities must find ways, beyond traditional mental health delivery systems, to help students address their needs. A number of national initiatives have recently been developed to respond to the growing mental health crisis on campus. After the tragedies at Virginia Tech and NIU, many states enacted legislation that requires colleges and universities to develop policies...
and procedures to respond to student mental health concerns, in particular, concerns that
might lead to violence towards oneself or the campus community. In addition, a number
of other programs have been developed to impact and improve college student mental
health. Some of these programs, which include the National College Depression
Partnership (NCDP), the Healthy Minds Study (HMS), Mental Health First Aid Training
(MHFA), Behavioral Intervention Teams (BIT’s), Case Management models, and the
Bringing Theory to Practice (BTtoP) project will be examined in this section.

The National College Depression Partnership (NCDP) assists colleges and
universities in developing strategies to screen students for depression through primary
health care providers on campus. This screening allows students, who otherwise may not
be identified as depressed, to access support and services.

Research shows that depression is a leading impediment to learning and
therefore a barrier to student success, wellness and retention. Mental
health resources are an important part of a comprehensive strategy to
address this problem, but these services alone are not enough. Many
students struggling with depression never visit a mental health
professional and are much more likely to access primary care because of
related physical symptoms like fatigue, insomnia, and non-specific pain.
(National College Depression Partnership, 2010)

The NCDP also provides a tracking database so that all students who screen positive for
depression are monitored by a clinician for a minimum of 12 weeks. Since 2006, more
than 140,000 college students have been screened and more than 2300 students were
identified as having significant levels of clinical depression. Many of these students were
identified and screened through an appointment with a physical health provider on
campus, not the college counseling center. The program has achieved “high rates of
depression detection, improved depression outcomes, increased adherence to treatment
and systematic follow-up of students with clinical depression” (National College Depression Partnership, 2010). This evidenced-based program exhibits promising results in identifying students who are depressed, especially those who might be reluctant to visit the college counseling center. It is also helps students manage their illnesses and subsequently improves the quality of their educational and social experiences.

One of the challenges in addressing college student mental health is the lack of empirical data on both the institutional and national levels. Few studies exist that provide institutions of higher education with the information necessary to respond to student needs. Many colleges and universities utilize the American College Health Association’s National College Health Assessment (NCHA) and the National Counseling Center Director’s Survey. Both provide useful data but are limited, as information related to prevalence rates of mental illness, stigma, and help-seeking behaviors is not included.

The Healthy Minds Study (HMS), first administered nationally in 2007, was created to provide a comprehensive examination of college student mental health. This survey addresses topics such as mental health measures, potential barriers and facilitators to accessing healthcare, perceived supportiveness of the academic and social environment, and outcomes related to mental health, such as substance use and academic performance (Center for the Study of Collegiate Mental Health, 2010). The HMS has gathered data indicating that “as many as one in five college students may suffer from depression, generalized anxiety disorder, or a panic disorder” (Speer, McFaul, & Mohatt, 2009, p. A25). Colleges and universities can utilize HMS data to gain a better understanding of the challenges and experiences of their students. This information can
also be used to help institutions of higher education to develop programs targeted toward helping students address their mental health needs.

The Mental Health First Aid (MHFA) program is being implemented at colleges and universities throughout the United States. Funded through a grant from the National Institute of Mental Health, the MHFA project involves training students, faculty and staff to respond to students in distress. “Identifying mental illness, reducing the stigma that keeps students from getting help, and increasing the capacity of mental-health services are all essential -- and are inextricably linked. Tackling all three issues requires an educational approach” (Speer, McFaul, & Mohatt, 2009, p. A26). The first step is to increase the understanding of mental illnesses as well as awareness of available resources. One of the primary challenges facing institutions of higher education is to identify students in distress. Sokolow (2010) asserts, “the single most powerful way we can intervene prior to the emergence of campus violence is to intentionally, actively and strategically empower a culture of reporting within the campus community and the larger related community” (p.1). The MHFA helps address this concern, as it helps students, faculty and staff recognize when their students are in distress and teaches them how to respond, including referrals to appropriate resources on campus.

After the tragedies at Virginia Tech and NIU, a number of states, enacted legislation requiring institutions of higher education to develop protocols related to campus safety. Some of these recommendations include: implementing communication systems to notify the campus community of safety issues, developing and practicing all-hazards protocols and responses to emergencies, increasing communication between
members of the community to identify individuals who pose a risk of harm to themselves or others, and the formation of behavioral threat assessment teams (State of Illinois Campus Security Task Force Report to the Governor, 2008). Colleges and universities throughout the country have implemented many of these recommendations, including developing new or repurposing existing threat assessment groups. Threat assessment groups, commonly referred to as Behavioral Intervention Teams (BIT’s), are designed to identify troubled students and provide a vehicle for colleges and universities to make informed choices about how to respond to concerning behavior. The BIT’s are multi-disciplinary groups formed to support students and to assess the risks to campus safety.

The primary purpose of Behavioral Intervention Teams is to

\[\text{s}\]upport its target audience (students, employees, faculty, staff) via an established protocol. The team tracks "red flags" over time, detecting patterns, trends, and disturbances in individual or group behavior. The team receives reports of disruptive, problematic or concerning behavior or misconduct (from co-workers, community members, friends, colleagues, etc), conducts an investigation, performs a threat assessment, and determines the best mechanisms for support, intervention, warning/notification and response. The team then deploys its resources and resources of the community and coordinates follow-up. (National Association of Behavioral Intervention Teams, 2011)

The BIT’s also facilitate communication between key stakeholders on campus and encourage information sharing. As noted in the Virginia Tech Report (2007), colleges and universities need to “recognize their responsibility to a young, vulnerable population and promote the sharing of information internally, and with parents, when significant circumstances pertaining to health and safety arise” (Virginia Tech Review Panel, 2007, p. 53).
Another initiative to come from the Virginia Tech incident is the implementation of a Case Management model on college campuses. Many college counseling centers have case managers working to help coordinate resources for students within the department and with outside providers. Case Management, which includes “coordinating and brokering the resources necessary to intervene with a particular person or situation of concern to reduce the risk or threat posed, connecting the person with necessary help, and monitoring progress of the intervention plan” (Randazzo & Plummer, 2009, p. 41), is at the foundation of behavioral threat assessment on college campuses. Case Managers, most often with a social work or counseling background, are being added to student affairs departments on many campuses to help coordinate support for students. These Case Managers do not typically work with students in a therapeutic role; however, they do serve as a liaison between the university and both on and off-campus services in the community, including treatment providers and family members. Case Managers serve a vital role in helping colleges and universities respond to the mental health concerns of students.

The initiatives previously mentioned exist outside of traditional campus mental health systems. Each has been designed to provide an organized structure to help colleges and universities better support students, respond to campus safety concerns, manage institutional liability, and comply with legal requirements. A student’s mental health can have a direct impact on his/her learning and overall quality of life. While the aforementioned initiatives show promise in helping to ameliorate the campus mental health crisis, none is integrated into the curriculum. It is important for institutions of
higher education to address student mental health in a variety of ways, and given its impact on learning, especially through curricular and co-curricular initiatives. Faculty should be involved in these interventions because

[f]aculty are viewed by students as the primary agents of transformation on campus, and they are the group students respect the most. Faculty are perhaps the only group on campus with the authority and educational responsibility to confront the proximate conditions of self-indulgence and the withdrawal of students from the challenge of engagement. (Harward, 2007, p. 11)

The Bringing Theory to Practice (BTtoP) project was developed jointly with the American Association of Colleges and Universities and the Charles Engelhard Foundation. The BTtoP (American Association of Colleges and Universities, 2010) was developed on the premise that a significant number of college students are disengaged and that substance abuse and depression are often the result of this disengagement. Donald Harward (2007), Director of the BTtoP, describes the development of the philosophy of the project.

The Bringing Theory to Practice project began with the hunch that engaged learning is the key to re-integrating the epistemic, eudemonic, and civic purposes of higher education. That is we believe that by engaging students, by involving them in demanding service-learning and community-based research experiences, the academy could force them to consider their own privilege; challenge their assumptions of entitlement and self-indulgence; help them recognize that learning has implications for action and use; help them develop skills and habits of resiliency; and make them aware of their responsibilities to the larger community. And further, we believed that, with these gains, students would be more likely to transfer academic engagement to greater personal well-being and to deeper civic engagement. (pp. 9-10)

The BTtoP project encourages the exploration and implementation of programs that increase student engagement in order to improve student mental health. In addition,
the project promotes the assessment of engaged learning and civic engagement programs and the impact they have on student mental-health and well-being. The BTtoP has provided grants to more than 100 institutions of higher education to study and address “how uses of engaged forms of learning, actively involving students both within and beyond the classroom, directly contribute to their cognitive, emotional, and civic development” (American Association of Colleges and Universities, 2010).

A key question asks whether interventions designed to improve engaged learning can positively impact student mental health. Data from one study funded by the BTtoP indicate that “students involved in learning communities reported consuming alcohol significantly less often and in lower quantities than their peers in regular first-year seminars” (Staub & Finley, 2007, p.19). However, during the first semester of participation, students in these learning communities also reported greater levels of depression than students not participating in learning communities. By the end of the academic year, students in both the learning communities and non-learning communities reported similar levels of depression (Staub & Finley, 2007). Swaner and Finley (2007) found that students who were more engaged drank more often, but consumed less during each sitting. A correlation between engagement and depression also occurred; students who were more engaged experienced more stress, but fewer symptoms of depression. In light of these findings, more research should be conducted on this topic to examine the impact engaged learning has on college student mental health and well-being.
Purpose of the Study

The purpose of this study is to explore the impact a residential learning community has on art student mental health and well-being. The college utilized for this study, Art College, is a small, private art college in an urban environment. Art College received a Bringing Theory to Practice (BTtoP) Demonstration grant for two academic years. Prior to receiving the BTtoP grant, Art College had implemented a number of non-curricular initiatives described in the introduction to this study in order to positively impact student mental health and well-being. The BTtoP grant allowed Art College to develop a curricular intervention to address this issue. The residential college program (RCP), a residential learning community, at Art College was designed to increase student engagement, improve retention and graduation rates, and positively impact the mental health and well-being of first-time freshmen. The project goal for the RCP was to create a unique opportunity for the [Art College] to design a sustainable, collaborative community for students. Its purpose is two-fold. First, to help students engage more fully in curricular and co-curricular experiences, improve health and well-being, and encourage civic development. Second, to completely re-evaluate and re-design the entire First Year program, based on the assessment of the [residential college program] model. (Art College, 2007)

The residential college program (RCP) consisted of a special section of a required faculty-led, first-year studio course where students lived together on one floor of a residence hall. Students in the RCP self-selected into the program during registration the summer prior to their freshman year and were housed together and attended one class together for their entire first year at Art College. More information about the RCP at Art College will be described in the methodology chapter.
Why is it important to study the mental health concerns of college student artists? In an essay titled “Art and Neurosis,” Lionel Trilling (1950) asserts “the question of the mental health of the artist has engaged the attention of our culture since the beginning of the Romantic Movement…the conception of artistic genius is indeed one of the characteristic notions of our culture” (pp. 160-161). In her book, *Touched with Fire, Manic-Depressive Illness and the Artistic Temperament*, psychiatrist Kay Redfield Jamison (1993) chronicles several studies that link creativity and the arts to mental illness. A study of 15 mid-twentieth-century Abstract Expressionist artists in the New York School concluded, “over 50% of the 15 artists in this group had some form of psychopathology, predominantly mood disorders and preoccupation with death, often compounded by alcohol abuse” (Schildkraut, Hirshfeld, & Murphy, 1994, p. 482).

Popular culture has also examined the notion that artistic genius and mental illness are connected. In the movie *Pollock*, actor Ed Woods portrays a reclusive artist who struggled with alcohol abuse his entire life. He died at the age of 44 in an alcohol-related car accident (Allen et al., 2000). In *Nola: A Memoir of Faith, Art and Madness*, Robin Hemley (1998) chronicles the life of his sister, an artist diagnosed with schizophrenia, who died of a drug overdose at the age of 25. Artists appear to be more susceptible to mental illness than the general population. While all college students would benefit from educational programs designed to improve their mental health, this study will provide important information about student artists, a vulnerable sub-population of college students, and the efficacy of one intervention designed to positively impact their mental health.
Definition of Terms

Engaged learning: “A process in which students are active participants in learning rather than passive recipients of information. It often includes service-learning, community-based research, interdisciplinary and integrative student-involved pedagogies that create opportunities for learning beyond lectures and seminars” (American Association of Colleges and Universities, n.d.).

Student mental health and well-being: “The presence of characteristics that typify aspects of positive mental health, such as a sense of direction, personal growth and fulfillment, social development, empathy, perspective-taking, and psychological flourishing” (American Association of Colleges and Universities, n.d). For the purposes of this study, well-being measurements will include alcohol and drug use, motivations for drinking alcohol, the impact alcohol has on students, stress, and depression.

Residential learning community: “Opportunities for clusters of students to live together and take classes together” (Zeller, 1998, p. 3). Student experiences in and outside of the classroom are enhanced by the involvement of their faculty in both their curricular and co-curricular experiences (Zeller, 1998). In this study, the Art College’s Residential College Program (RCP) is a residential learning community and it will be referred to as RCP for the remainder of this study.

Overview of the Study

This study assesses the impact of a residential learning community, or residential college program (RCP) on art students’ levels of engaged learning and mental health and well-being. Students in the study were first-time freshmen, attending a small, urban art
school. The RCP was developed to include a required two-semester, faculty-led studio course for first-year students. All students in the RCP lived together on the same floor of a residence hall, and unlike students in the control group, were required to remain enrolled with the same faculty member for both semesters. The curriculum of the course was similar to the non-RCP course and incorporated all of the same learning outcomes related to research and conceptual approaches to art-making. However, faculty in the RCP incorporated dimensions of both wellness and civic engagement into their curriculum. Resident Advisors, student leaders who lived on the RCP floors and were responsible for programming and the development of their residents, also sponsored programs related to mental health and well-being for RCP students. More information about the RCP will be described in the methodology chapter.

The survey utilized for this dissertation was created by Dr. Ashley Finley, national evaluator for the Bringing Theory to Practice project (BTtoP). This survey was developed from “standardized instruments and original items from BTtoP consortium institutions…in order to address multiple dimensions of engaged learning, civic engagement, and student mental health and well-being in a single instrument” (American Association of Colleges and Universities, 2010). The population size at the Art College was relatively small, with 72 students in the RCP group and 89 students in the non-RCP control group. The survey assesses the level of engaged learning a student has experienced. The survey also measures student mental health and well-being, using stress and depression scales, and alcohol and/or drug use. Additional information about the survey will be presented in the methodology section of this dissertation.
Research Questions

The following three questions guide this study:

1. Does a statistically significant difference in the level of engaged learning occur for art students participating in a residential learning community compared to art students not participating in such a community?

2. Utilizing scales assessing stress, depression, alcohol and drug use, motivations for drinking alcohol, and the impact of alcohol use, does a statistically significant difference in the level of mental health and well-being occur for art students involved in a residential learning community compared to art students not participating in such a community?

3. Is there a statistically significant relationship between engaged learning and student mental health and well-being between art students participating in a residential learning community and art students not participating in such a community?

Significance of the Study

College student mental health concerns frequently have a negative impact on academic performance, persistence and graduation rate. Students with mental health concerns are often not as successful as their peers who do not have these concerns. In addition, several significant incidents of violent and disruptive behavior on campus have forced institutions of higher education to face the challenge of addressing student mental health for reasons of safety, student success, and institutional liability. This is a campus-wide problem that cannot be remedied by counseling centers alone. Within a framework of limited resources, it is imperative colleges and universities find innovative ways to
more fully engage students in their learning and to positively impact student mental health. This study will provide data on one specific, curricular intervention.

Engaged learning in higher education is a highly researched topic (Kuh, 2003; Kuh, Kinzie, Schuh, Lenning & Ebbers, 1999; Whitt & Associates, 2005). In addition, a significant amount of research was found citing the benefits of learning communities and specifically, residential learning communities (Astin, 1973; Chickering, 1974; Inkelas & Weiseman, 2003; Pike, Schroeder, & Berry, 1997; Ryan, 2001). However, very little empirical data exploring the relationship between engaged learning and student mental health and well-being exists. Most of the research in this area has focused on the impact that engaged learning activities have on alcohol use and abuse. Astin (1993) found that forms of engaged learning, such as involvement in group projects and interaction with faculty, correlate with reduced drinking behaviors on campus. Wechsler, Dowdall, Davenport, and Castillo (1995) and Fenzel (2005) found correlations between community service and lower rates of binge drinking among college students. Brower, Golde, and Allen (2003) and Brower (2008) found that participation in a residential learning community positively affects college student binge drinking. However, very few published studies explore the impact a residential learning community may have on college student mental health and well-being.

As previously mentioned, artists have specific challenges related to mental health. However, only a small number of studies explore the mental health concerns of artists and no research related to art students in higher education and interventions designed to promote positive mental health and well-being could be located. This study will
contribute to the knowledge base of the higher education community by examining the impact that one engaged learning intervention, a residential learning community, may have on college student mental health and well-being. It will also offer valuable insights about college student artists and their mental health and well-being on campus.

Chapter Summary

Mental health and well-being contribute to college student academic achievement, persistence, graduation and overall success. A number of studies have shown that college students struggle with problems such as alcohol and substance abuse, depression, and sleep disturbance. Several high-profile incidents on college campuses where students have caused harm to themselves or others have also caused significant reactions by the media, public, and legislators. Campus safety is a serious concern and colleges and universities are now expected to respond to mental health concerns by implementing initiatives to support students who are struggling, offering gatekeeper training to students, faculty and staff, and creating Behavioral Intervention Teams and case management models on campus.

This study explores the impact a residential learning community emphasizing engaged learning has on college student mental health. Artists are especially vulnerable to mental illness, and this study was conducted on college student artists. The next chapter will review the literature related to this study. Specifically, mental health concerns of college students, engaged learning, residential living, and learning communities will be examined in order to provide relevant information related to the topic of student artists, engaged learning and mental health and well-being.
CHAPTER II
LITERATURE REVIEW

The health and well-being of students – from the broadest perspective – contribute to, and, indeed, make possible student success. Health creates capacity; students whose health status is positive and flourishing have greater ability and readiness to learn and engage fully in all meaningful educational experiences inside and outside the classroom. (Silverman, Underhile, & Keeling, 2008, p. 7)

Mental health concerns of college students have significant implications for institutions of higher education and for individual students and their families. According to Benton (2006), “[c]ollege student mental health problems are becoming more common, more problematic, and a much larger focus on college and university campuses” (p. 4). Staff and faculty are devoting significant time and energy to working with individual students who experience distress. For students, mental health challenges can significantly impact their ability to be successful in college. Colleges and universities continue to seek ways to address the mental health crisis on campus.

Utilizing engaged learning as a method of positively impacting college student mental health and well-being is a new concept in higher education and few studies have been conducted on this type of intervention. While the Bringing Theory to Practice (BTtoP) project (American Association of Colleges and Universities, 2010) has stimulated assessment on this topic, a significant lack of empirical evidence examining this project exists. This research study focuses on how one vehicle for engaged learning, a residential
college program, can be utilized to improve college student mental health and well-being. In order to provide a comprehensive review of the literature, this chapter will be divided into sections, each concentrating on one of four areas relevant to this topic: (a) college student mental health; (b) engaged learning; (c) residence halls in higher education in the United States; and (d) learning communities.

**College Student Mental Health**

Mental health problems can have a significant impact on a student’s personal and academic success and development. The first section of this chapter will review the literature related to (a) the college student mental health crisis, including prevalence and severity of mental health concerns on campus and the reasons why students experience these concerns; (b) a review of three major issues, stress, depression and alcohol use and abuse, and their impact on college student academic performance and persistence; (c) a review of the specific mental health concerns of artists.

**Mental Health Crisis on Campus**

College student mental health is a topic that has received a great deal of attention from the higher education community, the public, and the media in recent years. Many reports have indicated there is an increase in the number of students who are experiencing serious mental health concerns while they are in college (American College Health Association, 2009; Bishop, 2006; Duenwald, 2004; Erdur-Baker, Aberson, Barrow, & Draper, 2006; Gallagher, 2009; Hoover, 2003; Kitzrow, 2003). In the 2010 Higher Education Research Institute’s CIRP survey of more than 201,000 first-time freshmen, students reported having the lowest level of self-reported emotional health since 1985, when emotional health was first reported on this survey. Almost half of the respondents
rated their own emotional health as average or lower. In addition, almost one-third of the students reported feeling overwhelmed frequently during their senior year in high school. This percentage has almost doubled since 1985 (Pryor, Hurtado, DeAngelo, Palucki, Blake, & Tran, 2010).

As previously noted in Chapter I, college counseling center directors continue to report increases in the number and severity of issues students present on campus (Gallagher, 2009). Counseling center directors also report that more students come to college having already participated in treatment, including counseling and/or medication. In a longitudinal study, Benton, Robertson, Wen-Chih, Newton, and Benton (2003) reviewed trends of clients of college counseling services from 1988-2001. The authors reported that the severity of issues, including suicidal thoughts, depression, stress and anxiety increased during this time period. Soet and Sevig (2006) found that students who are or were clients of the college counseling service were more distressed and less able to cope than those students not seeking counseling. However, all students in the study, including those not seeking treatment, reported significant problems with sleeping, alcohol use, family issues and anxiety over succeeding in college. Approximately 33% of students reported they drank more than they should and two-thirds of the respondents reported mild to severe difficulties with sleep. Twenty percent of students reported a history of family abuse and three-quarters of students said they were concerned about succeeding in college. Both of these studies support the assertion that college students are experiencing an increase in mental health concerns as compared to prior generations.

Some researchers, however, disagree that students are experiencing more mental health problems. The primary critique of the existing data on the prevalence rates of
mental health problems in college students is that most studies published on this topic have focused solely on client and counseling center staff’s perceptions, rather than actual diagnostic data (Krumrei, Newton, & Kim, 2010; Much & Swanson, 2010; Sharkin, 1997; Sharkin & Coulter, 2005). In contrast to the reports citing increases in student mental health concerns, a ten-year examination at one institution of higher education found that the level of student distress for clients at the counseling center did not increase during the study (Schwartz, 2006). This research found that, while counselors perceived their clients as more acutely distressed, actual levels of student distress remained consistent during the ten-year time frame. In another study, Jenks Kettermann et al. (2007) reviewed the files of 827 students who were clients at the counseling center of a large midwestern university. These students visited the counseling center for a session at least once during the seven-year period of the study. Similar to Schwartz (2006), these researchers could not find any meaningful increases in the severity of the mental health concerns presented by students. The majority of the research about student mental health concerns has been conducted examining self-reported perceptions rather than actual diagnostic data. The conflicting information presented in these studies calls for more research to be conducted on this topic.

In order to address the concerns about self-reported data, several national studies have recently been initiated to determine the actual levels of mental health concerns. The Healthy Minds Study (Eisenberg & Nelson, 2009) and the Center for Collegiate Mental Health Assessment (Center for Collegiate Mental Health, 2010) have been designed to utilize diagnostic data from students and clinicians to determine the degree to which college students have mental health problems. These studies, which have included data
from a significant number of students from a diverse group of colleges and universities, should help determine whether or not college student mental health problems are increasing. Because both of these studies have recently been implemented, some time may pass before longitudinal evidence is available to help address this question. Until then, the prevailing viewpoint from administrators, faculty, students, parents and the media continues to be that mental health problems are increasing for students at colleges and universities.

The concern about college student psychological well-being is not a new one. Horowitz (1987) reported that in the 1970’s “disturbing reports of psychic distress among undergraduates” (p. 257) could be found. She highlighted increases in the utilization of college counseling centers and college student suicide rates due to academic and parental pressures. Astin (1993) found that students’ sense of psychological well-being declined during their time in college. And more than a decade ago, Levine and Cureton (1998) declared that college students were coming to campus “overwhelmed and more damaged than those of previous years” (p. 95). While a number of authors have highlighted concerns about college student mental health in the past, at no other time have these challenges been more widely researched and discussed than the present.

No definitive reasons appear to explain why increases in mental health concerns exist for college students today. Some authors suggest that improvements in pharmacological interventions may provide students with mental illnesses an increased ability to function, and therefore facilitate their expanded access to college (Bloom, & Beckley, 2005; Schwartz, 2006). College counseling center directors reported increases in clients who are using medication, from 9% in 1994; to 17% in 2003; and 25% in 2009.
(Gallagher, 2009). In a longitudinal study at a Midwestern university, medication use of students utilizing the counseling center increased over a 13-year period from 10 to 25% (Benton, Robertson, Wen-Chih, Newton, & Benton, 2003). Schwartz (2006) also found that from 1992-2002 the number of student clients at a college counseling center who were referred for a medication evaluation doubled every five years. It appears that more students are being medicated, both prior to college and once they are enrolled. This may have an impact on these students’ abilities to be successful in college.

The increases in mental health concerns may also be due to societal influences and changes in parental philosophies and actions. Kitzrow (2003) reported that cultural changes and societal influences such as “divorce, family dysfunction, instability, poor parenting skills, poor frustration tolerance, violence, early experimentation with drugs, alcohol and sex, and poor interpersonal attachments” (p. 169) may be to blame for these issues. In A Nation of Wimps, the author hypothesized that parents who are over-involved and over-protective prevent children from developing independence. She asserted that the lack of independence and emphasis on achievement has caused students to be unable to deal with failure, make decisions for themselves, and may be contributing to the increase in distress students experience when they are in college (Marano, 2004).

The decreased levels of stigma and increased help-seeking behaviors on college campuses may be another reason more students are seeking mental health support, which may account for the perception that students are experiencing significant mental health concerns at a greater rate (Berger, 2002; O’Connor, 2001). Arehart-Treichel (2002) reported that a larger number of students are coming to college having already sought mental health treatment. This assertion supports the conclusion that stigma concerning
mental health issues has decreased because more students are seeking treatment. The increased utilization of mental health services on campus may also be a result of better help-seeking behaviors by college students. Hunt and Eisenberg (2010) reported that studies of the general population have shown that the percentage of individuals with mental health concerns who utilize support services has more than doubled from 1985 to 2002.

**Mental Health Concerns and Academic Performance and Persistence**

Approximately three-quarters of lifetime mental illnesses are diagnosed during the typical college years, between the ages 18-24 (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005). Serious mental illness adversely impacts academic performance and GPA. Turner and Berry (2000) found that 70% of students in their study reported that mental health concerns negatively affected their academic performance. A 2009 study of more than 25,000 college students found that students who previously considered suicide had a lower self-reported GPA. Students’ self-reported GPA’s on a scale of 0-4 for students were: 3.12 for those students who never considered suicide; 3.04 for those who seriously considered suicide; and 2.98 for students who actually attempted suicide attempt (Eisenberg & Hunt, 2009).

While limited research exists examining the effect mental health concerns have on college student academic performance and persistence, several studies have examined the relationship between educational attainment and mental health during pre-college years. Women diagnosed with early-onset depression (prior to age 22) were half as likely to receive a college degree compared to those diagnosed with depression after the age of 22 (Berndt et al., 2000). Kessler, Foster, Saunders and Stang (1995) found that more than
5% of college students failed to complete their education because of a mental health issue. Breslau, Sampson, and Kessler (2008) conducted interviews with more than 9,000 individuals to determine the impact of mental health concerns on educational attainment. They found that being diagnosed with more than one mental illness during childhood significantly increased the likelihood that the individual would not complete high school. Several other researchers also found that students who were diagnosed with a mental illness as an adolescent were more likely to drop-out from high school, and less likely to enroll in college (Kessler, 1995; Stoep, Weiss, Saldanha, Cheney, & Cohen, 2003; Wilcox-Gok, Marcotte, Farahati, & Borkoski, 2004). A recent study found that college students with mental illnesses were less likely to utilize campus facilities and support services, had poorer relationships with other students, faculty and staff, and were less satisfied overall with their campus experience as compared to students who did not have a mental illness (Salzer, 2012). As exhibited in these studies, mental health concerns have a negative effect on college student academic success and retention; thus, it is imperative that colleges and universities further explore this issue and develop appropriate support and interventions to help students manage these concerns.

This study focused on measuring the impact of engaged learning on three specific mental health issues, stress, depression, and alcohol use and abuse. The next section will provide an overview of the literature pertaining to each of these issues and its impact on college student academic performance and persistence.

**Stress.** Stress can have a significant impact on the experiences of college students. In one national study, 28% of students indicated that stress had a negative impact on their academic experience (American College Health Association, 2011).
Kadison (2004) noted that overall student mental health concerns are often exacerbated by college stress. Stress also impacts students’ physical health. Undergraduate students who had increased levels of stress reported more physical health problems and were less satisfied with their college experience as compared to students who reported lower levels of stress (Demakis, & McAdams, 1994).

Stress can also have a significant impact on student adjustment to college. In one study, stress experienced during the summer negatively impacted students’ overall adjustment to college (Pancer, Hunsberger, Pratt, & Alisat, 2000). Winter and Yaffe (2000) also found that increased stress levels during the first year in college resulted in lower GPA’s and more adjustment problems for students. In addition, college student self-esteem and perceptions of academic performance were negatively affected by stress (Goldman & Wong, 1997). Several studies indicated that sleep disturbance, which often occurs along with stress, also negatively impacted academic performance (Howell, Jahrig, & Powell, 2004; Pilcher & Walters, 1997). Results of the 2011 administration of the National College Health Assessment indicate that more than 60% of students reported they did not get enough sleep to feel rested on at least three days during the previous week (American College Health Association, 2011). For students living in campus residence halls, roommate conflicts, sleep difficulties, and lack of ability to study due to social factors greatly increased their stress levels (Dusselier, Dunn, Wang, Shelley, & Whalen, 2005). While colleges and universities cannot create “stress-free” environments, given the negative consequences of college student stress, institutions of higher education should work with students to find ways to minimize stress and to develop better coping strategies.
Depression. Eisenberg, Gollust, Golberstein, and Hefner (2007) found that 14% of undergraduate college students experienced depression. Several researchers have also found that depression can have significant consequences students personally and academically. Students who have a diagnosis of depression have an increased risk for a co-occurring anxiety or a substance abuse disorder (Weissman et al., 1996). Ross (2004) also found that depressed students who used alcohol and other drugs were at an increased risk of suicide. A number of studies have found that depression has an adverse affect on students’ academic performance (Fazio & Palm, 1998; Haines, Norris, & Kashy, 1996; Trice, Holland, & Gagne, 2000). Fletcher (2008) reported that high school students who were depressed had lower academic achievement, were more likely to drop out of high school, and were less likely to enroll in college. Another study found that college students who were depressed and were not in treatment had lower GPA’s and reported they were less able to complete assigned academic tasks as compared to students who were not depressed or were seeking treatment for depression (Hysenbegasi, Hass, & Rowland, 2005).

In a study of 350 college students in Great Britain, Andrews and Wilding (2004) reported that students who tested positive for depression had lower exam scores as compared to students who were not depressed. In a study of 2,800 students at a large, Midwestern public university, depression was found to have a negative impact on college student grade point averages (GPA) (Eisenberg, Golberstein, & Hunt, 2009). The authors also reported that students who had a co-occurrence of depression and anxiety experienced a further drop in GPA. Depression adversely impacted student persistence, as those students who were the most depressed were also more likely to leave the
university (Eisenberg, Golberstein, & Hunt, 2009). While there are relatively few studies examining the link between depression and academic performance and persistence of college students, the existing research clearly indicates that depression has serious consequences for students and for colleges and universities. Institutions of higher education should continue to examine this issue and develop interventions designed to support students who are depressed.

**Alcohol use and abuse.** College students consume larger quantities of alcohol as compared to their peers who are not attending college and students often experience negative consequences from alcohol use (Slutske, 2005; Timberlake et al., 2007). In the 2008 administration of the Core Survey on Alcohol and Other Drugs, 37% of college students reported being involved in some form of misconduct and 25% reported experiencing a serious personal problem (such as having suicidal thoughts, being hurt or injured, or being involved in a sexual assault) as a result of their consumption of alcohol or drugs (Southern Illinois University Carbondale Core Institute). In the National College Health Assessment, more than 35% of students reported doing something they later regretted because of alcohol use; 16% reported having unprotected sex while under the influence of alcohol; and 15% of students physically injured themselves because of their drinking (American College Health Association, 2011). Most students who have problems with alcohol abuse do not seek treatment. One study found that fewer than four-percent of students with an alcohol use disorder sought services or treatment for their alcohol issues (Wu, Pilowsky, Schlenger, & Hasin, 2007).

Alcohol abuse has also been shown to negatively impact students’ academic achievement (Kessler, Foster, Saunders, & Stanfg 1995; Svanum & Zody, 2001;
Weinberger & Bartholomew, 1996). In 2002, it was estimated that approximately 44% of college students engaged in binge drinking behavior (Wechsler, Lee, Kuo, Seibring, Nelson, & Lee). In the 2011 administration of the National College Health Assessment, students were asked to indicate how many drinks they had the last time they ‘partied’ or socialized. Forty percent of men and 25% of women reported consuming five or more drinks the last time they partied, which would be considered binge drinking (American College Health Association, 2011). These numbers are concerning, as a number of researchers have found that binge drinking has been associated with missing classes, having lower test scores, and an overall lower GPA (Center for the Study of Collegiate Mental Health, 2009; Presley & Pimentel, 2006; Wechsler, Lee, Kuo, & Lee, 2000). In addition, there appear to be linkages between other mental health concerns and alcohol abuse. Individuals often drink as a coping mechanism to deal with distress, depression or anxiety (Cooper, Agocha, & Sheldon, 2000; Hutchinson, Patock, Cheong, & Nagoshi, 1998; Lewis & O’Neill, 2000; Martin, Lynch, Pollock, & Clark, 2000; Murphy, Hoyme, Colby, & Borsari, 2006). The negative impact of alcohol use and abuse for college students is well-documented and institutions of higher education should continue to develop interventions to assist students in making better choices related to their alcohol consumption.

The research clearly indicates that having a mental illness can significantly impact a student's ability to function academically while in college. Students who are stressed, have depression and/or abuse alcohol often experience adverse consequences related to their academic success and performance. In addition these concerns also have a negative effect on college student retention, persistence and graduation. The development of
effective interventions and support systems for these students will not only benefit the individual student, but also will also help colleges and universities improve retention rates and academic performance of students.

**Mental Health Concerns of Artists**

The debate about the link between creativity and mental illness can be traced back to ancient Greek history, “those who have been eminent in philosophy, politics, poetry and the arts have all had their tendencies toward melancholia” (Aristotle, as cited in Andreason, 1996). Andreason reports that the earliest research on this subject occurred in 1926 when Havelock Ellis studied more than 1,000 people identified as “geniuses” in their professions and found that 17% of them exhibited signs of mental illness. Several other early researchers found significant links between genius and mental illness (Juda, 1949; Karlsson, 1970; Smith, 1971). While considerable debate has occurred around the concept of the “mad artist,” several key researchers have concluded that artists, and those in the creative professions, are more likely to suffer from mental illness and substance abuse than the general population. In a biographical study of more than 1,000 prominent people living in the 20th century, Dr. Arnold Ludwig (1995) discovered that members of the artistic profession or creative arts as a whole – architecture, design, art, composing, musical entertainment, theater, and all forms of writing – suffer from more types of mental difficulties and do so over longer periods of their lives than members of the other professions. (p. 4)

While alcohol abuse and depression were consistent illnesses across the creative fields, Ludwig (1995) found that no singular pattern of mental illness affected those in the artistic professions. He did find, however, that those professions that called for greater degrees of precision, logic, and reason (e.g., designers, architects, journalists) had
fewer incidences of mental illness, as compared to those requiring more emotive responses (e.g., musicians, actors, poets) (Ludwig, 1995). Ludwig also found that those in creative fields with mental illnesses were often predisposed to the illness (e.g., they had a family history of mental illness, exhibited emotional problems during childhood) prior to joining the profession. He theorizes that individuals with mental health concerns often find the creative professions more open and accommodating to their illnesses as they “represent an occupational haven for those who wrestle with their personal demons or, at the least, try to contain them through their creative activities” (p. 6).

Several other researchers have reported linkages between creativity and mental illness (Barker, 1998; Becker, 2000). Jamison (1995) studied a group of 47 British living artists and writers who were experts in their field. She found that 38% of the group had been treated for a mood disorder and three-fourths of those treated were either hospitalized for their illness or on medication. Mental illness, in particular the incidences of bipolar disorder, mood disorder, and alcoholism, seem to be especially prevalent among writers. Andreasen (2005) studied writers attending the Iowa Writers’ Workshop and found 80% of the writers met the criteria for a major mood disorder, as compared to 30% of the control group (non writers).

However, the type of mental illness does not appear to impact the individual’s creativity or creative process. In one study of 40 patients, Ghadirian, Gregoire, and Kosmidis (2000) found that the specific type of illness (e.g., bipolar illness, depression) did not impact the level of creativity of the individual. However, those patients who were most significantly mentally ill had the lowest levels of creativity compared to those who were moderately or mildly mentally ill. While these studies support the hypothesis that
creativity and mental illness are linked, most of the studies focus on a biographical review and do not include other methods of assessment. More research should be conducted on this issue to determine if artists are more vulnerable to mental illness than the general population.

**Summary of College Student Mental Health**

Mental health concerns have been shown to negatively impact the academic performance, persistence and graduation rates of college students. Alcohol and drug use, stress and depression are some of the major issues facing these students. A number of studies have also shown that artists are more susceptible to mental illness; therefore art students appear to be at greater risk than the general college student population. More research needs to be conducted on how mental health concerns affect the college student experience. In particular, research should be focused on the needs of student artists, given the prevalence of mental illness within this population.

**Engaged Learning**

Engaged learning can be viewed through two different lenses, (1) an involvement perspective – where students actively engage with learning experiences and activities; and (2) civic engagement – where students engage in community life outside of the college (Swaner, 2005). The residential college program (RCP) at Art College was designed to increase student involvement through both curricular and co-curricular activities. While a civic engagement component was introduced during the second semester of the project, the primary focus was on campus-based student involvement. Therefore, for the purposes of this dissertation, engaged learning will be defined through the involvement perspective. This section of the literature review will examine engaged
learning as a method of improving undergraduate higher education and includes a review of the research on benefits engaged learning pedagogies provide for students.

**Improving Undergraduate Education**

During the previous 40 years, higher education in America has been the target of criticism by the federal government, accrediting agencies, scholars, the media, and the general public. Many of the concerns have centered around content and delivery of the curriculum, in particular the role of liberal arts versus science and mathematics (Bennett & National Endowment for the Humanities, 1984; Bloom, 1987; Nussbaum, 1997, 2010; Project on Redefining the Meaning and Purpose of Baccalaureate Degrees, 1985). These reports debate the overall purpose of education and the role it plays in the United States. Concerns have also arisen about college costs, access to higher education, and graduation rates (Bennett, 1987; Boehner & McKeon, 2003; U.S. Department of Education, 2006).

In 1983, the National Institute of Education convened a group to examine ways to improve undergraduate higher education. The group published “Involvement in Learning: Realizing the Potential of American Higher Education” (1984), a landmark report asserting that student learning and development can be maximized if colleges and universities focus on three critical conditions of excellence: (1) *student involvement* – the amount of time, energy and effort students devote to the learning process; (2) *high expectations* – creating realistic expectations for student outcomes that are shared by both the student and the institution of higher education; and (3) *assessment and feedback* – creating an environment where regular and periodic assessment and feedback are utilized to improve the educational experiences for students (National Institute of Education, 1984). Alexander Astin (1984), a member of this study group and a key contributor to
this report, defined student involvement as “the quality and quantity of the physical and psychological energy that students invest in the college experience” (p. 297). In Student Involvement Theory, Astin contends that in order to create a strong learning environment, students need to be involved in their education and colleges and universities should provide programs that foster student involvement. Astin’s theory has five basic suppositions:

1. Involvement is the investment of psychological and physical energy in some type of activity.
2. Students invest varying amounts of energy in activities.
3. Involvement has quantitative and qualitative features.
4. The benefits derived, such as student learning and personal development, are a function of the quality and quantity of effort students expend.
5. The effectiveness of any educational policy or practice is related to the extent to which it encourages students to become engaged in appropriate activities that increase student involvement. (Astin, 1984)

Astin’s theory is at the center of many engaged learning activities on college campuses today (Kuh, 2009).

Chickering and Gamson (1987), also members of the study group, developed “Seven Principles for Good Practice in Undergraduate Education,” a set of guiding principles designed to bridge the gap between many of the reform reports and theories on teaching and learning (Gamson, 1991). The “Principles for Good Practice,” which also support the theory that active learning and collaboration between students and faculty are essential for quality educational experiences, have greatly influenced the way colleges and universities organize their teaching and learning activities to support student success on campus (Chickering & Gamson, 1987). Involvement with curricular and co-curricular experiences while in college provides considerable benefits for students. Because
individual effort and involvement are the critical determinants of college impact, institutions should focus on ways to shape the academic, interpersonal, and extracurricular offerings on campus that encourage student engagement (Pascarella & Terenzini, 2005).

**Student Engagement with Academic Experiences**

Many researchers have studied the effect student engagement has on college student learning and personal development. Overall student experience and academic outcomes are significantly improved when students are more engaged with the college environment. This engagement includes the amount of time devoted to their curricular and co-curricular experiences; participation in active learning pedagogies; and the implementation of high impact educational practices by colleges and universities. Astin (1993) found that students greatly benefit from spending time on academically related activities (e.g., attending class and studying), and engaging in more active pedagogies (e.g., internship programs, independent research projects and class presentations). Cognitive growth and development in areas such as writing and verbal abilities, knowledge and academic skill acquisition, and critical thinking are also positively impacted when students engage more with their academic experiences (Pascarella & Terenzini, 2005). Students who are involved in purposefully educational activities have higher GPA’s and are more likely to persist from their first to second year in college. These benefits are even more profound for students of color and students who come to college with lower academic abilities (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007). Participation in “high-impact” practices such as a learning community, research with faculty, study abroad and culminating senior experiences provide students with greater
levels of deep learning and greater gains in learning and personal development (National Survey of Student Engagement, 2007). The evidence exhibits a direct correlation between student engagement and academic gains; therefore, colleges and universities should develop programs and activities that foster that engagement.

**Student Engagement with Co-Curricular Experiences**

Researchers also found that students experience significant advantages when they are involved with co-curricular activities on campus. Peers have a tremendous impact on cognitive, affective, psychological, and behavioral development of students (Astin, 1984). Students who engage in learning activities with their peers are also more likely to participate in other effective educational practices and have more positive views of the campus-learning environment (NSSE, 2010). Living in a residence hall on campus has been shown to have a positive effect on students’ academic and personal development (Pascarella & Terenzini, 2005). A more thorough review of the benefits living on campus has on student development and learning will be detailed later in this chapter. Co-curricular involvement has also been linked to cognitive and academic development and achievement (Pascarella & Terenzini, 2005). Perhaps one of the areas in higher education most criticized is the failure to graduate many of the students who begin as freshmen. Colleges and universities, legislatures, and the general public are concerned with improving student retention and graduation rates. Only 57% of students who begin college as a freshman will graduate within a six-year time period (National Center for Education Statistics, 2010). A number of studies support the conclusion that engaged learning and co-curricular involvement positively impact persistence and graduation rates (Astin, 1985; Pace, 1984; Tinto, 1993). Co-curricular involvement is essential to the
growth and development of college students. In summary, research on engaged learning has shown that it has a positive impact on the learning environment, improves academic experiences and outcomes for students, is related to personal growth and development, and positively improves student persistence and graduation rates. Colleges and universities should support engaged learning initiatives so that students and the overall campus can experience these benefits.

**Student Engagement and Mental Health and Well-Being**

As previously mentioned, little research has been conducted exploring the impact student engagement has on mental health and well-being. “Comprehensive studies investigating the health and behavioral outcomes of student engagement programs are virtually nonexistent” (The National Center on Addiction and Substance Abuse at Columbia University, 2003a, p. 34). While almost no research exists on the impact of engaged learning initiatives on college students, research on middle school and high school students have shown that engagement in co-curricular activities reduces substance use (The National Center on Addiction and Substance Abuse at Columbia University, 2005). In a study of tenth-graders, students who participated in at least one to four hours of co-curricular activities per week were 35% less likely to smoke and 49% less likely to use drugs than students who did not participate in any activities (Zill, Nord, & Loomis, 1995). The National Center on Addiction and Substance Abuse at Columbia University (2003b) found that teenage girls who do not participate in after-school activities are twice as likely to smoke and are more likely to use alcohol and marijuana compared to girls who participate in three or more activities. Finally, high school students are less likely to use substances such as alcohol and tobacco when they have college plans and report
higher levels of school effort and interest (Bryant, Schulenberg, O’Malley, Bachman & Johnston, 2003).

In 2005 the National Center on Addiction and Substance Abuse conducted a nationally representative survey of more than 2000 college students to determine their level of engagement with curricular and co-curricular activities and self-reported perceptions of their own mental health and well-being. The results of this study indicate that student engagement appears to negatively impact some aspects of mental health. The National Center on Addiction and Substance Abuse (2005) found that students who were more engaged on campus reported greater levels of stress, mental exhaustion, and anxiety as compared to their peers. However, no significant differences were found in overall mental health, as defined by feeling hopeless, sad or depressed, between the two groups. Engagement also correlated to positive outcomes, especially in relation to substance use and abuse. Students who experienced higher levels of engagement reported less frequent use of alcohol and illegal drugs (The National Center on Addiction and Substance Abuse, 2005). While these results are promising, more research exploring the relationship between engaged learning and college student mental health and well-being should be conducted.

**Summary of Student Engagement**

Student engagement as a construct has its roots in a number of theories dating back to the early 1900’s. The amount of time students devote to their educational experiences, the extent of involvement students have on campus, the level of social and academic integration students achieve, and the ability of colleges and universities to provide high quality experiences aligned with good educational practices influence the
level of engagement experienced by students. Engaged learning pedagogies and activities produce tremendous benefits, such as improved academic achievement, greater cognitive and personal development, improved writing and speaking abilities, and increased persistence and graduation rates, for students and institutions of higher education. However, very little empirical research exploring the link between student engagement and mental health and well-being exists. Students who experience positive mental health and well-being are more likely to achieve personal and academic success. And given the positive impact engaged learning has on student academic and personal development, it is imperative that more studies be conducted to determine the effect engaged learning initiatives have on improving student mental health.

**Residence Halls in Higher Education**

Residential living in American higher education has taken many forms since the development of early Colonial colleges. During fall 2010, 78% of students attending Baccalaureate institutions lived in residence halls on college and university campuses (Higher Education Research Institute, 2010). For many traditional-aged students, a residence hall may be the first place they live outside of their family home. Residence halls provide students with an environment where they can develop autonomy, foster personal relationships, and enhance their personal and academic development. The third section of this chapter focuses on campus-based residential living and includes a brief historical overview of college residence halls in the United States and the research on the impact residence halls have on the student experience.
Historical Overview of College Residence halls

This portion of the literature review will focus on key issues, educational movements, and legislative interventions that impacted the development of the modern campus residence hall in the United States. It begins with a historical overview of residential life, including the founding of the early Colonial colleges and the influence the English residential college had on these colleges. Additionally, key moments in the history of U.S. higher education that have impacted residential life on campus will be examined.

**English residential colleges and colonial colleges.** Contemporary college residence halls have their roots in the residential colleges at Oxford and Cambridge in England. Oxford and Cambridge “made the residential college the heart of their educational procedures” (Brubacher & Rudy, 1997, p. 41). The English residential college system was designed to bring students and faculty together both in and outside of the classroom. Faculty members lived with students and were responsible for the intellectual and moral development of their charges (Ryan, 2001). Residence halls were viewed as a central focus of the educational environment, and “the collegiate way is the notion that a curriculum, a library, a faculty and student are not enough to make a college. It is an adherence to the residential scheme of things” (Rudolph & Thelin, 1990, p. 87).

While early 17th century Colonial colleges attempted to implement residential colleges, this model was not very successful because it required faculty to serve as both disciplinarian and tutor (Schroeder & Mable, 1994, p. 5). Unlike Oxford and Cambridge, where deans and proctors attended to student discipline, the early colleges in the United
States required faculty to serve in this role. While Colonial colleges tried to merge the curricular and co-curricular experiences, the earliest American “dormitories” served primarily as a place for students to live, not an extension of the learning environment (Cowley in Frederiksen, 1993).

**German influence on American higher education.** Beginning in the mid 1800’s, higher education in the United States was significantly influenced by the German higher educational system. Young American scholars traveled to Germany to study and earn advanced degrees. When they returned, they saw little value in having residence halls on campus, as faculty wanted to focus their time and energy on research and professional societies (Cowley & Williams, 1991; Schroeder & Mable, 1994). During the 1860’s the University of Michigan eliminated student residence halls and in 1880, Harvard stopped requiring students to live on campus (Duke, 1996). Colleges and universities shifted their emphasis away from the “collegiate way of life.” Scholarly inquiry and research became the primary purpose for much of higher education and student life outside of the classroom was no longer the responsibility of the faculty. Schroeder and Mable (1994) contend that this separation of the curriculum and extra curriculum is still apparent in higher education today.

**Residential colleges and learning communities.** In the early 1900’s a few colleges began to once again explore the residential college model for undergraduate students. The presidents at Harvard and Princeton developed programs that focused on student and faculty interaction through a strong residential component. Cowley and Williams (1991) reported that these programs “brought their institutions back into an English collegiate mode, [with] the more impersonal German model apparently not
serving the universities well at the undergraduate level… instructors were chosen for their teaching ability and their personality as these characteristics would enhance undergraduate student learning.” (p. 171).

Alexander Meiklejohn founded the Experimental College at the University of Wisconsin in 1927. He developed a radical new approach to educating undergraduate students and restructured the curriculum in order to “build a community and create a seamless interface between the living and learning environments” (Smith, 2001, p. 5). He was a strong proponent of fostering student and faculty interaction and building community was a central theme of his curriculum. The Experimental College was designed so that a student could “consult often with his advisers and fellow students, but more importantly, to make them a part of his life, living closely with them and learning from them in extracurricular environments that did not necessarily have anything to do with school” (Abler, 2002, p. 61). The early 1900’s saw a resurgence of the residential college movement and an emphasis, at least by some educators, on the blending of the curricular and co-curricular environments.

**G.I. Bill and expansion of American higher education.** The G.I. Bill, introduced during World War II, had a significant impact on the growth of higher education in the United States and the expansion of residential programs. Colleges and universities did not have enough housing on campus to accommodate the influx of thousands of new students. “Dormitory rooms by the autumn of 1946 had filled to overflowing” (Cowley & Williams, 1991, p. 188). The federal government responded by allocating facilities (i.e., Quonset Huts) formerly used for war activities to veteran students and the U.S. Congress passed Title IV of the Housing Act of 1950, which
provided colleges and universities with financial assistance to build new housing and renovate existing facilities (Frederiksen, 1993). However, given the urgency in which these residence halls were needed, little attention was given to how these facilities could impact the “quality of students’ educational experiences and personal development” (Frederiksen, 1993, p.172). The tremendous growth in enrollment left colleges and universities with an increased and improved physical plant; however, the focus of residence halls remained primarily to provide students with a place to eat and sleep. The educational potential of residential living was still virtually unrecognized by students, administrators and faculty.

**Student development perspective.** By the late 1960’s, after the surge in construction of residence halls on college campuses slowed, most colleges and universities in the United States had sufficient housing to meet the needs of students. Colleges and universities needed staff to manage these residence halls. Rather than just having a place for students to sleep, institutions began to focus their attention on the educational potential of residence halls (Frederiksen, 1993).

The creation of the “student development perspective” also began to emerge during the late 1960’s. Building on the long-held tradition that colleges and universities should focus on educating the whole student, which was first formally asserted by the American Council on Education’s statement entitled, “The Student Personnel Point of View” (1937, 1949), the student development perspective supported the developmental nature of student personnel work, which is more commonly referred to as “Student Affairs.” This perspective called for student self-directedness as the primary goal, with
collaboration between faculty and administrators as being essential to achieving this goal (Chickering & Reisser, 1993). Schroeder and Mable (1994) contended the new student development perspective had a profound impact on the roles and functions of residence hall staff. Assuming such roles as educators, counselors, and managers, staff members responded to an increasingly diverse student culture, to problems of alcohol and drug abuse, and to behavioral problems associated with the absence of civility. They implemented numerous programs that attempted to address these concerns and facilitate students’ personal development. (p. 10)

Arguably, the Student Personnel Point of View had a huge impact on the development of the residence life profession and its emphasis on providing educational opportunities for student growth and holistic development.

**Summary of the historical development of residence halls.** American higher education has changed significantly since the 17th century when the first colleges were founded. Residential living has been considerably impacted by this evolution. Many Colonial colleges tried to emulate the residential college system of Oxford and Cambridge, and faculty lived with and attended to the personal, moral, spiritual, and academic needs of students. This model was not successful and as the professoriate changed and more emphasis was placed on scholarly inquiry, many colleges and universities eliminated or deemphasized residence halls. In the early-to-mid-twentieth-century, several colleges developed residential learning communities. While these initiatives were short-lived, they did prove that faculty and student interaction greatly benefited the learning environment and positively impacted students. Higher education later experienced a significant expansion after World War II when the G.I. Bill was implemented for returning veterans. Colleges and universities saw considerable increases in student enrollment and responded by constructing new facilities and extension centers.
Due to the rapid nature of this growth, not much emphasis was placed on how residence halls could impact the development of students. The administrative field of residence life grew significantly during this time period and considerable emphasis was placed on the development of students and the role residence life professionals serve in providing educational opportunities and experiences. This brief historical review provides an overall context for the work that is being conducted in college residence halls today. The next section of this review examines specific benefits that living in a campus residence hall provides for students.

Benefits of Living in a College Residence Hall

Considerable research has been conducted on the impact that living in a residence hall has on the student experience in college. This section will describe the impact campus living has on (a) students’ overall experience with college; (b) persistence and graduation rates; (c) academic achievement; and (d) mental health and well being.

Impact on the overall student experience. Living on campus has been shown to significantly improve academic and social experiences for college students. In one of the first national studies to examine the differences between living on campus and commuting, Chickering (1974) conducted a longitudinal analysis of data from more than 26,000 students attending 176 different institutions. These data were taken from the American Council on Education (ACE) survey administered between 1965 and 1970. Students took the survey at three different points during their educational career: at the beginning of their freshman year in college, at the beginning of their sophomore year, and again during the fall of their senior year. Chickering’s analysis of the data concluded that, compared to students living off-campus, students who lived in on-campus residence
halls were more satisfied overall with their college experience; engaged in more positive academic behaviors, such as connecting with faculty outside of class, asking for help from faculty, and attending class on time; had more contact with fellow students; and had higher self-esteem and stronger self-perceptions (Chickering, 1974). Chickering noted that the differences experienced between students living with parents and residential students also expanded during their time at college. Students on campus reported

a wider range of competence than students living with their parents; during the freshman year the range for dormitory students expanded and the range for commuters living at home shrank. Thus these two groups of students, coming from different educational and family backgrounds, move farther apart rather than closer together. (pp. 68-69)

In an expansion of Chickering’s research, Astin (1977) conducted a national study also utilizing the ACE data. This study focused on the overall impact college has on students. Astin reported a number of important differences between the experiences of residents and commuter students. Compared to students living off-campus, residents were “more likely to interact with faculty, to become involved in student government, and to join social fraternities or sororities” (p. 220). In addition, residents were more likely to persist to graduation, achieve in co-curricular areas, such as athletics and leadership, have higher GPA’s, and were more satisfied with their college experience, specifically with their peer connections, faculty relations and social life (Astin, 1977). Both of these early studies indicated that, after controlling for background characteristics such as socio-economic status, students living in residence halls experienced significant academic, social, and personal outcomes.
Ballou, Reavill, and Schultz (1995) found that, compared to students who have never lived on campus, residents were more engaged with faculty and had greater involvement on campus. These data indicated that students who had been residents, even after they moved off campus, had statistically significant more engagement with faculty and involvement on campus than those students who had never lived in college residence halls. In *How College Affects Students* (2005) Pascarella and Terenzini concluded that living on campus is “perhaps the single most consistent within-college determinant of impact on a student’s experience in college” (p. 603). After controlling for background traits, demographic information, and other influences, their research revealed that statistically significant positive impacts were realized for students who lived on campus in the areas of

- aesthetic, cultural, and intellectual values; liberalization of social, political and religious values and attitudes; development of more-positive self-concepts; intellectual orientation, autonomy, and independence; tolerance, empathy and ability to relate to others; and the use of principled reasoning to judge moral issues. (Pascarella & Terenzini, 2005, p. 603)

College students benefit from living on campus and colleges and universities should encourage residence hall participation and develop programs to maximize the educational potential of residence halls.

**Persistence, retention and graduation rates.** Living on campus has also been linked to higher rates of college student persistence and graduation. Tinto (1987) asserted that “[b]y far the most important environmental characteristic associated with college persistence is living in a dormitory during the freshman year” (p. 109). He found that living in a residence hall increased student graduation rates by approximately 12%. While living in a residence hall has been shown to positively impact persistence and
graduation rates for all students, those students who have pre-college traits that might pre-dispose them to succeed, such as higher levels of academic achievement, family socioeconomic status, high school co-curricular involvement, and educational aspirations, benefit at an even greater rate (Pascarella, Terenzini, & Blimling, 1994). Blimling (1993) also reported a significant increase in retention and graduation for students who live on campus, which he attributed to the social and academic support students receive from their peers. Students who live on campus more fully participate in co-curricular activities, are more satisfied with their college experience, report more personal growth and development, and interact more frequently with their peers and with faculty (Blimling, 1993). Living in a residence hall assists students in becoming more socially integrated into the campus, which Tinto (1987) determined to be a significant factor in retention and graduation from college. The evidence from several decades of research is clear, living in a residence hall has a positive effect on student persistence and graduation from college.

Academic achievement. As previously discussed, living on campus has been shown to positively impact graduation and retention rates, leads to more substantial involvement with curricular and co-curricular activities on campus, and fosters more positive interactions between students and faculty. However, conflicting reports exist about how location of residence impacts academic achievement. Many researchers have concluded that living in a residence hall has a positive influence on the academic performance of students (LeMoal, 1980; May, 1974; Nowack & Hanson, 1985). Many colleges and universities utilized these studies to garner support for residence halls. However, Blimling (1993) conducted a meta-analysis of the research and found that, after
controlling for past academic performance, living on campus did not significantly impact students’ academic performance. Jones and Robertson (2002) also found that choice of residence (on or off-campus) did not significantly impact a student’s academic performance. Overall, the research appears to indicate that living on campus alone does not significantly affect a student’s academic achievement. Therefore, many colleges and universities have developed programs, such as residential learning communities (RLCs), to foster a more educationally rich environment in the residence halls in order to improve academic achievement. A more detailed examination of the research on RLCs will be presented later in this chapter.

**Mental health and well-being.** As previously mentioned, limited research has been conducted measuring the impact of living on campus to student mental health and well-being. Students who live on campus are more likely to be integrated socially and to feel connected to their peers (Blimling, 1993; Tinto, 1987). These connections often positively impact student mental health and well-being. Cohen and Wills (1985) reported that individuals with strong social networks experienced a buffer against stress, and were better able to manage stressful situations. In addition, a significant body of literature supports the connection between social support and mental health in the general population (Berkman, Glass, Brissette, & Seeman, 2000; Leung, Chen, Lue, & Hsu, 2007; Seeman, 1996). Research on college students also indicates that students who are less connected socially experience more mental health problems (Eisenberg, Golbertstein, & Hunt, 2009; Hefner & Eisenberg, 2009).

**Alcohol use and abuse.** Much of the research around residential living and mental health examines the effect college residence hall living has on alcohol use and
abuse. Most of this literature focuses on individual student use and abuse, the impact alcohol abuse has on members of the residence hall community, and the efficacy of substance-free residence halls as an intervention to reduce college student drinking. Several studies found that students living in residence halls on campus drank more frequently than students who lived off-campus with their families. In addition, students who lived in single-gender residence halls experienced more issues related to alcohol compared to those living in coed residence halls (Harford, Wechsler, & Muthen, 2002; O’Hare, 1990). College drinking impacts not only the student who is consuming alcohol, but also other members of the residential community. “Students who attended schools with high rates of heavy drinking experienced a greater number of secondhand effects, including disruption of sleep or studies; property damage; and verbal, physical, or sexual violence” (Wechsler, Lee, Kuo, Sebring, Nelson, & Lee, 2002, p. 204).

In response to the considerable levels of alcohol use and abuse among college students living on campus, many schools have implemented “substance-free” housing options for students. While several different models exist, most often a floor or entire residence hall is designated as substance-free, and students who elect to live in that area agree to abstain from using substances, including alcohol, illegal drugs, and sometimes tobacco (Finn, 1996). Several studies found that students living in traditional residence halls were exposed to more second-hand drinking effects than students living in substance free residence halls (Pasch, Lindsay, Barnes, Liechty, & Koschoreck, 2000; Wechsler, Lee. Kuo, Sebring, Nelson, & Lee, 2002). Colleges and universities should continue to seek out ways to examine the impact residence halls have on student mental health and well-being.
Summary of the benefits of living on campus. The research is clear, compared to commuter students; students who live in residence halls have significant advantages and improved experiences in college. These benefits include improved social integration and peer interactions, more contact with faculty members outside of class, greater involvement in and satisfaction with their overall college experience, and stronger rates of persistence and graduation. However, multiple studies revealed that residents do not experience greater academic achievement as compared to students living off-campus. Many colleges and universities view the residence halls as an extension of the academic environment and have developed specific programs to enhance the academic experiences in residence halls. The next portion of this review will focus on one of these programs, the residential learning community.

Learning Communities

Learning communities are a primary vehicle, colleges and universities have utilized to infuse engaged learning activities into the curriculum. While many types of learning communities exist, Tinto (1998) purports that all learning communities have two common characteristics: shared knowledge, which enables students to “construct a shared, coherent educational experience that is not just an unconnected array of courses” (p. 171); and shared knowing, which affords the opportunity to get to know each other more quickly and intimately allowing students to “construct knowledge together – to share the experience of learning as a community of learners…[and involving] students both socially and intellectually in ways that promote intellectual development” (Tinto, 1998, p. 171).
As previously mentioned, during the 1970’s, colleges and universities began to realize that residence halls have the potential to enhance the academic environment on campus. A number of new initiatives were developed, and many institutions of higher education began to infuse curricular initiatives into the residence halls. These residential learning communities blended the academic and social environments for students, and programming in the residence halls often complemented students’ academic experiences (Zeller, 1998). Residential learning communities are a specific type of learning community. In order to provide a thorough review, the following areas will be addressed in this section: (a) definitions of contemporary learning community models utilized on college campuses; (b) the historical context of learning communities; (c) the impact learning communities have on students who participate in them; and (d) the benefits residential learning communities provide to students.

**Learning Community Models**

Learning communities “purposefully restructure the curriculum to link together courses or course work so that students find greater coherence in what they are learning as well as increased intellectual interaction with faculty and fellow students” (Gabelnick, MacGregor, Matthews, & Smith, 1990, p. 5). While many different learning community models exist on college campuses today, four distinct types of learning communities are most often utilized.

1. Curricular learning communities consist of students who are co-enrolled in two or more courses that are linked, often by a common theme;

2. Classroom learning communities occur in a single classroom where the faculty member attempts to create a greater sense of community
among the participants while also utilizing active and group learning pedagogies;

3. Residential learning communities involve students who take classes together and live in close proximity to each other, which facilitates social and academic development and creates supplementary learning opportunities; and

4. Student-type learning communities are designed for populations with special needs such as academically underprepared students, historically underrepresented students, students with disabilities, honors students, or students with similar academic interests, such as the arts or women in science, and engineering programs. (Lenning & Ebbers, 1999)

The type of learning community utilized by a college or university should be determined by what best fits the needs of the students and the campus. This study focused on a residential learning community, where students both lived and took classes together, and their curricular and co-curricular experiences were blended. While there exists different models, all learning communities should aim to foster a sense of community and shared purpose among their participants, as well as creating curricular coherence and connections for students (Smith, 2001). The next section will provide a brief history of learning communities.

**Historical Context of Learning Communities**

The contemporary learning community movement has been greatly influenced by John Dewey and Alexander Meiklejohn, early 20th-century scholars who espoused ground-breaking educational ideals about active learning, democracy and education, curricular structure and innovation, and the purpose of general and liberal education (Smith, MacGregor, Matthews, & Gabelnick, 2004). John Dewey was a philosopher, psychologist, educational reformer and college faculty member. He belonged to the first
generation of college professors who were not members of the clergy and as such, he was considered one of the first public intellectuals in the United States (Halliburton, 1997). Dewey wrote a number of books and articles about the purpose of education and teaching and learning philosophies and ideals (Smith, MacGregor, Matthews, & Gablenick, 2004). In “Democracy in Education,” Dewey (1916) argued that the central role of education was to prepare students to actively participate in a democracy. He also stressed the importance of community and asserted that building strong relationships between the student and teacher and among students was critical to quality learning (Minkler, 2002). His ideas are still very influential in education today, especially in relation to learning communities.

Dewey is considered a major influence on contemporary work in learning communities because of his writings about the teaching and learning process, especially student-centered learning, and active learning, and because of his educational and democratic values. His work put down the roots of experiential and cooperative learning. (Smith, MacGregor, Matthews, & Gablenick, 2004, p. 25)

Alexander Meiklejohn, a contemporary of Dewey, also influenced the development of the modern learning community in higher education. Meiklejohn, a philosopher and educational theorist, is “considered a father of the learning community movement because of his insights about the need to reorganize the structure of the curriculum” (Gabelnick, MacGregor, Matthews, & Smith, 1990, p. 11). He founded the Experimental College at the University of Wisconsin in 1927, which was one of the earliest learning communities in higher education in the United States (Smith, 2001). Meiklejohn was also very interested in the relationship between education and democracy. He agreed with Dewey’s assertion that the purpose of education was to be “a
social enterprise in which all citizens have an opportunity to contribute and to which all
feel responsible” (Dewey, 1938, p. 56).

Meiklejohn’s pedagogy was quite progressive. Classes were team-taught and
students were required to put theory into practice while connecting real world ideals to
their course work (Smith, 2001). Because of opposition from the university faculty and
President, the Experimental College was only in operation for five years. However, it
“had an enormous impact on its students and recent histories describe it as a high point in
the University’s history” (p. 2).

In 1965, Joseph Tussman, a faculty member at the University of California
Berkeley, established the Experiment at Berkeley, a learning community modeled after
the Experimental College in Wisconsin. Tussman was a student of Meiklejohn and was
greatly influenced by his educational philosophies and ideals (Smith, MacGregor,
Matthews, & Gablenick, 2004). The Experiment at Berkeley was also short-lived;
however, Tussman’s work greatly influenced a number of other colleges, including San
Jose State College and State University of New York – Old Westbury to create
innovative educational programs involving learning communities.

Learning communities significantly expanded during the 1970’s and 1980’s. In
1970, The Evergreen State College (Evergreen), a public alternative college was
established in Washington State. Evergreen integrated many of Tussman’s ideas; in fact,
the faculty hired to plan the college were required to read Tussman’s book, the
Experiment at Berkeley (Smith, MacGregor, Matthews, & Gablenick, 2004). In 1987,
the Washington State Legislature provided funds for a statewide learning communities
initiative to be hosted at Evergreen. The primary purpose was to examine “curricular
restructuring through learning communities” (Smith, MacGregor, Matthews, & Gablenick, 2004, p. 55). This initiative was very successful and by 1994 more than 34 campuses in Washington had implemented learning communities.

Learning communities have continued to play a central role in curricular reform in American higher education. During the 1970’s, a number of colleges and universities developed learning communities as a response to the vast expansion of higher education, the development of the community college system, and curricular and pedagogical innovation. From 1980 to the present, calls for greater accountability within higher education and a significant shift toward focusing on pedagogies supporting student learning have significantly impacted the development of contemporary learning communities. By 2004, more than 600 institutions of higher education had developed learning communities on their campus (Smith, MacGregor, Matthews, & Gablenick, 2004). While the learning communities’ movement has evolved, colleges and universities continue to face many of the same problems and issues as in the past, such as student access to higher education, providing education for the public good, and education as a means to democratic citizenship and community. Learning communities continue to be one vehicle that institutions utilize for reforming the curriculum to address these issues. The next section of this review highlights some of the benefits learning communities provide for college students and institutions of higher education.

**Benefits of Learning Communities**

A significant body of research on college learning communities has been conducted during the previous 20 years. Several studies have shown that students report experiencing considerable benefits as a result of their participation in learning
These benefits include developing friendships and feeling a sense of belonging; learning together and working collaboratively to solve problems; improved self-confidence; developing an appreciation of others’ (including both students and faculty) perspectives; and building intellectual connections and developing the ability to apply concepts learned in one subject to another subject or course (Dodge & Kendall, 2004; Gabelnick, MacGregor, Matthews, & Smith, 1990). In addition, several researchers have found that learning communities benefit students, faculty and institutions of higher education by enhancing student persistence and graduation and improving teaching and learning (Tinto, 1997; Tinto & Russo, 1994). The learning community utilized for this study is a residential learning community (RLC) and the next section of this chapter will examine the impact RLCs have on students.

**Residential Learning Communities**

As previously mentioned, residential learning communities (RLCs) are one form of a learning community where college students take classes together and live on the same floor in the same area of a residence hall. In 2002, the National Study of Living-Learning Programs (NSLLP) was developed to study the effects of learning communities. The NSLLP is a multi-institutional study designed to examine the impact RLCs have on specific student outcomes. The survey was administered in 2007 to more than 220,000 students at 49 different colleges and universities (Inkelas, 2008). The study focused on students participating in residential learning communities and a comparison group of students who were living in traditional residence halls was also surveyed. Students participating in RLCs experienced significantly more positive outcomes than those in the comparison group. Participation in the RLC had considerable academic benefits for
students. For example, researchers found that students discussed academic and career issues more frequently with their peers, more often engaged in course-related faculty interactions, experienced faculty mentorship at greater rates, and utilized residence hall resources, such as computer labs and study assistance more frequently. In addition, students in the RLCs had easier transitions to the college environment, found the residence hall more socially and academically supportive, and were more confident in their overall college success. Residential learning community students also experienced more self-reported growth in their critical thinking and analysis and higher grade point averages (Inkelas, 2008). These results demonstrate that students who participate in Residential Learning Communities experience considerable benefits as compared to students in traditional residence halls.

**Persistence and graduation rates.** While living on campus significantly improves student persistence and graduation rates, participating in an RLC appears to have little additional impact on retention and graduation. Pascarella and Terenzini (2005) contend that studies of RLCs prior to the late 1990’s indicated that residential learning communities had a significant impact on college student persistence. However, they report that research since that time has produced less compelling evidence that RLCs positively impact retention. Pascarella and Terenzini (2005) posit that the RLCs studied after the late 1990’s appear to be less intensive and comprehensive, involved greater numbers of students and less money was provided to support this initiative as compared to early RLCs. As a result, faculty contact and mentoring opportunities have decreased, which may account for the lack of evidence that participation in an RLC positively impacts persistence and graduation rates.
Student satisfaction and social integration. Several researchers have examined the relationship between participation in an RLC and student satisfaction and perception of the academic and social experiences on campus. Arminio (1994) found that students who participated in residential learning communities were more satisfied with their residential experiences than students in non-residential learning communities. Henry and Schein (1998) found that, compared to students in traditional residence halls, students in RLCs reported more positive attitudes toward the social and academic programs offered by their residence hall. In another study, students in residential learning communities “were more likely to interact with their peers around academics and had more positive perceptions about the benefits of their residence hall environment contributing to enriching educational experiences” (Wawrzynski & Jessup-Anger, 2010, p. 213). Johnson and Romanoff (1999) found that students in the residential learning pilot program at the University of Southern Maine were more satisfied with their college experience, were more comfortable speaking up in class and developed stronger relationships with their peers and faculty.

Residential learning communities often help students better integrate socially into the campus and create stronger social connections. Kaya (2004) found that students in residence halls who perceived more supportive social networks performed better academically and reported better overall adjustment, social adjustment, personal-emotional adjustment and institutional attachment. Overall, the research indicates that participation in an RLC has a positive effect on both student satisfaction with their in-and out-of-class experiences as well as their attitudes and perceptions about these experiences.
Academic achievement. As previously mentioned, research reveals that living in a residence hall versus commuting, has little or no impact on a student’s academic outcome or performance. However, several studies on residential learning communities indicate that participation in an RLC has a positive effect on a student’s academic experience and outcome. Pike (1999) found that students in the RLC had higher levels of involvement in the arts, in co-curricular experiences, and within the residence halls. Students also interacted more with their faculty and peers, better integrated their course information, and experienced more significant gains in both general education and intellectual development. Pasque and Murphy (2005) found that participation in an RLC positively impacted academic achievement and intellectual engagement. St. Onge, Peckskamp, and McIntosh (2003) found that students participating in residential learning communities experienced a more supportive environment in the residence halls, interacted socially and academically with their peers at greater rates, created more meaningful connections with their peers, and received greater encouragement to be academically successful from their peers. Students in the RLCs also perceived their Resident Advisor (RA) as being more connected to the academic experience as compared to RAs in traditional residence halls (St. Onge, Peckskamp, & McIntosh, 2003).

Residential learning communities have also been shown to benefit specific populations who have traditionally struggled with academic achievement. In one study conducted at a public institution, male students experienced significantly greater gains in one academic outcome, as measured by GPA, due to their participation in an RLC (Edwards & McKelfresh, 2002). First-generation college students also experienced greater ease with social and academic transitions as a result of their participation in an
RLC (Inkelas, Daver, Vogt, & Leonard, 2007). Residential learning communities provide students with a more holistic experience on campus, one that integrates their living and learning environments. Students who participate in an RLC experience significant benefits as compared to students in traditional residence halls. Colleges and universities should continue to find ways to blend curricular and co-curricular experiences on campus. Given the positive outcomes associated with RLCs, more colleges and universities should consider programs that foster these types of educational environments.

Mental health and well-being. Limited research has been conducted focusing on the mental health and well being of residential students as compared to that of commuter students. Similarly, little research exists studying the impact of a RLC on the mental health and well being of students. However, two studies have been conducted comparing the drinking rates and effects of drinking of RLC students with those in traditional residence halls. Brower, Golde, and Allen (2003) found that students participating in an RLC drank less and engaged in binge-drinking less frequently. Students in the RLC were more influenced by their peers not to drink. In addition, students in the RLC experienced fewer primary side-effects from drinking (e.g., missed classes, poor academic performance, and being ashamed of their behavior) as well as fewer secondary side-effects from others’ drinking behavior (e.g., having their sleep disturbed, babysitting friends who had been drinking, and damage to communal property as a result of drinking). Brower (2008) determined that, similar to his 2003 study, students participating in an RLC drank less frequently and experienced fewer academic and social problems due to their own drinking behavior. Students participating in the RLC were
also slightly less likely to drink if they had a bad day, received a bad grade or to get away from their problems. Students in the RLC also experienced fewer secondary effects related to someone else’s drinking. Overall, participation in a residential learning community appears to have a considerable effect on a student’s alcohol use and abuse and contributes to students experiencing fewer secondary effects from others’ drinking behaviors.

**Summary of Residential Learning Communities**

College and university housing in the U.S. has changed dramatically since Colonial colleges were founded in the 1600’s. However, residential learning communities of today, similar to Colonial colleges, have their roots in the residential college system of Oxford and Cambridge Universities in England. Considerable research has been conducted measuring the effects of living on-campus compared to commuting. While no significant impact on a student’s academic achievement and outcomes appear to occur, students experience many other benefits from living on campus, including greater connections to faculty, stronger social interactions, and greater satisfaction with their overall college experience. In addition, compared to students living in traditional residence halls, students who participate in a residential learning community experience greater academic gains and outcomes, are more connected to their peers and faculty, and experience fewer negative effects from their own drinking and that of their peers. Living on campus, and specifically, participating in a residential learning community, can greatly contribute to a student’s education and significantly enhance a student’s academic and social experience in college.
Chapter Summary

The literature review examined four topics: (a) college student mental health; (b) engaged learning; (c) residence halls in higher education in the United States; and (d) learning communities. College student mental health, specifically stress, depression and alcohol abuse, has been shown to negatively affect college student academic performance, GPA, persistence and graduation rates. In addition, there appears to be a link between creativity and mental illness. Compared to the general population, artists have been shown to have a higher prevalence rate of mental illness. The research on the mental health concerns of artists is limited and the research on student artists is non-existent; therefore research should be conducted to determine how susceptible student artists are to mental health concerns and to determine ways to ameliorate these concerns.

Engaged learning has been shown to positively improve academic performance, cognitive growth and development, and persistence. Students who are more engaged on campus experience increased levels of stress but decreased use and abuse of alcohol. More research is needed to examine the correlation between student engagement and student mental health and well-being.

Students who live in residence halls experience considerable benefits such as improved social integration and peer support, more contact with faculty and increased persistence and graduation rates compared to students who live off-campus. Academic performance and achievement do not appear to be impacted by living on campus. Limited research has been conducted related to residence halls and mental health and well-being. However, students who live in residence halls are more likely to have
improved social support, which has been shown to have a positive impact on mental health.

Residential learning communities (RLCs) were developed to improve the teaching and learning environment on college campuses. Students who live in RLCs experience significant benefits compared to students living in traditional residence halls, such as improved academic achievement and higher GPAs, more frequent interactions with faculty, increased satisfaction with their college experience, and found the residence halls to be more supportive socially and academically. While limited research has been conducted measuring the impact of RLCs on college student mental health and well-being, students who live in RLCs appear to use and abuse less frequently and experience fewer side effects from their own and others’ drinking. This review of the literature demonstrated that engaged learning and residential learning communities provide improved experiences for students; however, more research needs to be conducted to determine what, if any, impact they have on college student mental health and well-being.

The next chapter will provide detailed information regarding the methodology utilized for this study. Specific topics examined include the rationale for utilizing the specific methodology, a review of the research design, a discussion of the specific population studied, a description of the residential college program and more detailed information and the specific intervention employed for this study, the development of the survey instrument, data collection methods, and the data analysis utilized in this study.
CHAPTER III

METHODOLOGY

This chapter presents the methodology used to examine the impact a residential learning community in a specialized institution of higher education had on engaged learning and student mental health and well-being. This chapter focuses on seven areas relevant to the methodology: (a) a discussion of the rationale used to determine the methodology; (b) the research design; (c) a review of the population utilized for this study; (d) a description of the residential college program intervention; (e) the survey instrument development, validity and reliability; (f) data collection methods; and (g) an examination of the methods utilized to analyze the data collected in this study.

Rationale for the Methodology

This study was designed to measure the impact a residential college program has on engaged learning and student mental health and well-being. In addition, potential correlations that may exist between engaged learning and student mental health and well-being were examined. Many topics in this study, such as behavior related to mental health and substance use and abuse, focused on sensitive issues. A quantitative research design was selected because it provided a minimally intrusive data collection method, with the assumption that students participating in the study would answer more honestly if they were allowed to do so using a confidential paper or on-line survey. The survey
used in this study was developed by the Bringing Theory to Practice (BTtoP) 
organization and has been administered at several other colleges and universities.

**Research Design**

This study utilized quasi-experimental research because it involved a control and 
experimental or treatment group and it manipulated the treatment of the experimental 
group (the residential college program – RCP) to study the outcome (Fraenkel & Wallen, 
2006). The groups were not selected randomly. The chair of the first-year program at 
Art College selected the six sections of the Research Studio course that comprised the 
control group. This process was conducted through cluster sampling, a procedure where 
participants were selected because of their participation in a group rather than for 
individual characteristics (Upcraft & Schuh, 1996). Students in this study were identified 
because of their participation in a specific class section and attention was focused on 
identifying faculty who were willing to allow researchers to come into class to administer 
the survey. This study included collecting data at the beginning of the school year 
(pretest) and at the end of the spring term (posttest). This research methodology and 
design allowed the researcher to assess whether the RCP had an impact on engaged 
learning and/or mental health and well-being, and to determine if any significant 
correlations occurred between engaged learning and mental health and well-being. More 
details about the RCP are provided later in this chapter. The survey utilized in this study 
included questions in three primary areas: (a) engaged learning; (b) civic engagement; 
and (c) mental health and well-being. Because this study focused on the impact a 
residential college program had on student engagement and mental health and well-being,
the data from the questions about civic engagement were not examined for this study. This survey was administered at Art College during the 2008-09 academic year; therefore, this study analyzed an existing and archived dataset. This current study was developed to provide a more complete analysis of the existing data.

**Limitations**

This study utilized an existing, archived dataset. A number of limitations were identified with the research design, the most significant of which is the lack of personal identifiers used in the data collection. The researchers wanted to ensure confidentiality for the students participating in the study, and since Art College is a small college where most of the Student Affairs staff work closely with the freshmen students, it was decided not to include any personally identifiable information on each of the surveys. This was also done to encourage students to answer the questions, many of which were sensitive in nature, more honestly. However, this required the data to be aggregated to the site level (i.e., Research Studio control group) and limited a number of the advanced statistical techniques that could be utilized. It was not possible to conduct analysis that utilized the pretest and posttest data simultaneously in order to determine if individual students and each group experienced significant changes in any of the scales. The lack of personal identifiers also limited the ability to determine if self-selection was a factor in this study. Additional limitations include: a small sample size with less than 100 participants in each group; and data collection methods that included an in-person administration of the pretest with a strong return rate, and an on-line survey administration of the posttest, with fewer students returning surveys. These limitations are more fully discussed in chapter 5.
Population Studied

The treatment group included all 72 students who participated in the residential college program (RCP), a group of six class sections of a required research studio class. The control group consisted of a sample of the 378 first-year students in the non-RCP research studio class. A sample of 89 students from six class sections of the non-RCP research studio course was selected to participate in this study. A sample was chosen so the number of participants and the number of class sections were similar in both the control and treatment groups.

Description of the Residential College Program

The residential college program (RCP) at Art College was implemented during the fall 2006 semester as a pilot project. The BTtoP Demonstration Grant funded the RCP at Art College during the 2007-08 and 2008-09 academic years. Incoming freshmen students were notified of the RCP through the admissions process and were offered the opportunity to register for the RCP course during their registration appointment with their Admissions Counselor.

The RCP was designed to engage students more fully in both their curricular and co-curricular experiences at Art College. This intervention was implemented to improve retention and graduation rates, to assist students in more fully engaging with the institution, and to positively impact the mental health and well-being of students (Art College, 2009). RAs and faculty members were selected for this program based on their abilities to create community, interests in community-based learning, and desire to positively improve the student experience and specifically, health and well-being. RAs
worked with the faculty to design their programming around the curriculum so they could complement the experiences occurring in the classroom. Particular attention was paid to wellness as both the RAs and the faculty provided activities and experiences for students that focused on healthy living. Faculty and students often created food during class, which was facilitated by the classroom being located in the residence hall where faculty had access to a kitchen facility. An alumnus of Art College, who was also a chef, was hired to help each class section design and cook a meal or feast for the other sections of this class. During these activities, students were challenged to think about nutrition, exercise and other components of wellness. The feast activity served to strengthen the community within the RCP program. RAs also created programs with wellness themes, such as organizing potlucks from items bought at a farmer’s market, and presenting stress-relief programs during final exams, which included massage therapists, yoga, and other stress relief activities (Art College, 2010).

Instrument Development, Validity and Reliability

The survey utilized for this study was developed by Dr. Ashley Finley for the Bringing Theory to Practice project (Association of American Colleges and Universities, 2011). It used questions and scales from several existing survey instruments, including National Survey of Student Engagement – NSSE (National Survey of Student Engagement, 2011); depression scales from the National College Health Assessment - ACHA Depression (American College Health Association, 2011); the Center for Epidemiologic Studies Depression Scale - CESD Depression (Radloff, 1977); the Drinking Motives Questionnaire – Revised (Cooper, 1994); and the Core Survey on
Alcohol and Other Drugs (Southern Illinois University Carbondale Core Institute, 2008). The survey also included questions developed specifically by the BTtoP consortium. The survey included five background questions and 28 survey questions; some questions included multiple items (see Appendix A). The total number of questions with items was 151 and students needed approximately 20 minutes to complete the entire survey. However, because the civic engagement portion of the instrument was not analyzed, the total number of questions and items utilized for this study was 110. In order to avoid confusion, questions on the survey that contained multiple items will be referred to as a “section”. When a question contained only one item, it will be referred to as a “question”.

Sections one through three of the survey focused on engaged learning. Sections four through seven and sections 17-28 related to mental health and well-being. The civic engagement portion of the survey included sections eight through 16 and they were not analyzed for this study. The survey also contained five demographic/background questions. This next section of this dissertation describes: (a) the development of questions/sections related to engaged learning and their validity and reliability; (b) the development of questions/sections related to college student mental health and well-being and their validity and reliability; and (c) the development of demographic/background questions.
Engaged Learning

Student engagement represents two key components: (1) the amount of time and energy students devote to their curricular and co-curricular activities that lead to outcomes that constitute student success; and (2) how colleges and universities allocate their resources to provide learning opportunities and services that encourage students to participate in such activities (Kuh, 2001; Wolf-Wendel, Ward, & Kinzie, 2009). The survey utilized for this study adapted several questions from the National Survey on Student Engagement (NSSE). The National Survey of Student Engagement (NSSE) was developed in the year 2000 to address three primary purposes: (a) to provide colleges and universities with high-quality, actionable data that could be utilized to improve the undergraduate experience; (b) to study and document effective educational practices in postsecondary settings; and (c) to provide empirically driven concepts of quality in higher education, shifting the rankings conversation to that of measurable outcomes (Kuh, 2009). Colleges and universities who administered the NSSE began to study student engagement in a more defined and empirical manner in order to understand the effect engagement had on the student experience. The NSSE has considerably impacted the study of educational activities and outcomes, as it has provided colleges and universities with data to improve curricular and co-curricular programs on campus. The BTtoP supports projects based on the hypothesis that engaged learning has a positive impact on student mental health and well-being. For this reason, the survey utilized in this study, which was developed by the BTtoP adapted several questions from the NSSE.
Engaged learning survey questions. The engaged learning portion of this survey included several questions (sections) adapted from the NSSE survey and questions developed by a group of colleges and universities participating in the Bringing Theory to Practice project. Three survey sections with 30 items were used to elicit a self-reported assessment of students’ levels of engaged learning. All 30 items were included in one scale, Engaged Learning for the analysis of the data. This scale included three sections.

Section one. This section included 15 items that asked students to report the frequency in which they participated in activities related to engaged learning on a five-point Likert scale from “very often” to “never.” Topics for this section related to students’ preparation for class and response or attitudes about class, such as class presentations, preparation for class, levels of engagement, opinion on time spent in class being worthwhile, excitement about class, focus on good grades and presenting best work, synthesis of materials from the same class and with other classes, and the amount of time spent devoted to studies. Seven of the 15 items were adapted directly from the NSSE. The BTtoP consortium developed the remaining eight items.

Section two. This section included seven items that asked students to rate their level of agreement on topics related to how the class materials have impacted student attitudes, beliefs and viewpoints on a five-point Likert scale from “strongly agree” to “strongly disagree.” Topics for this section included relating class materials to life outside of the classroom; relating class materials to actions or decisions; changes in viewpoints and perspectives, awareness of place in society, and awareness of issues
related to class materials. The BTtoP consortium developed this section and the seven items.

**Section three.** This section asked students to rate their level of agreement on topics related to taking initiative and the impact the class had on their life outside of class on a five-point Likert scale from “strongly agree” to “strongly disagree.” It included eight items, three of which were adapted from the NSSE survey and the BTtoP consortium developed the remaining five. Topics for this section included: seeking more information outside of class, discussing class topics and items learned with others outside of class, engaging in discussions with individuals with different perspectives, participation in organizations related to class topics, and using facts learned in class to critique information outside of class.

**Validity and reliability.** These sections included items from the NSSE and items that were developed by the BTtoP consortium. As a whole, they have not been measured against other national surveys and databases, nor have they been administered to a large sample size. However, the items related to engaged learning include areas that are commonly considered factors related to student engagement in college students, therefore this researcher assumed face validity on these questions. This researcher also calculated the Chronbach alpha score to test reliability.

**College Student Mental Health and Well-Being**

The BTtoP project identified a number of issues that affected college student mental health and well-being. The survey examined stress, depression, frequency of alcohol and drug use, motives for drinking, and problems associated with alcohol use.
The survey utilized questions from four national surveys and a number of questions developed by the BTtoP consortium.

**Stress scale.** Stress is a major impediment to college student success (Kadison & DiGeronimo, 2004; Murff, 2005; Ross, Neibling, & Heckert, 1999). The survey utilized for this study included two questions related to stress. Section four of the survey contained eight items which asked students to rate the amount of stress they experience, on a five-point Likert scale, from “very much” to “none,” from sources such as school work, extracurricular activities, social life, dating, sex, financial pressures, family issues and concerns about college. These items made up the Stress scale. Question five of the survey was an open-ended question that asked students to indicate other sources of stress they experienced during the previous school year. Many students did not answer this question, and due to limited data available, question five was not analyzed for this study.

**Validity and reliability.** These questions were developed by the BTtoP consortium. They have not been measured against other national surveys and databases, nor have they been administered to a large sample size. However, the items related to stress included areas that are commonly considered factors of stress in college students. Therefore this researcher assumed face validity exists on these questions. This researcher also calculated the Chronbach alpha score to test reliability.

**Depression scales.** As noted in Chapter I, depression is one of the primary impediments to college student success, wellness and retention (NCDP, 2010). The survey utilized for this study included three depression scales: the Center for
Epidemiologic Studies Depression Scale (CESD Depression Scale), the depression scale utilized in the American College Health Association’s National College Health Assessment (ACHA Depression scale), and the combined CESD and ACHA scales (All Depression Scale). The CESD and ACHA depressions scales are briefly explained below.

**Center for Epidemiologic Studies Depression Scale.** The Center for Epidemiologic Studies Depression Scale (CESD Depression) was developed as a tool to measure depression and includes 20 items that indicate symptoms of depression within the general population (Radloff, 1977). Participants were asked to respond to the frequency of occurrence per week on a four-point scale of zero to three: 0 = “rarely or none of the time (less than 1 day)”, 1 = “some or a little of the time (1-2 days)”, 2 = “occasionally or a moderate amount of time (3-4 days)”, and 3 = “most or all of the time (5-7 days).” All items on the CESD Depression were utilized for this study. However, the Likert scale was expanded from 0 - 3 to 0 – 4 with 0 = “never”; 2 = “sometimes”; and 4 = “very often.” The items were taken from an existing depressions scale

The CES-D items were selected from a pool of items from previously validated depression scales (e.g., Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Dshlstrom & Welsch, 1960; Gardner, 1968; Raskin, Schulerbrandt, Reatig, & Mckeao, 1969; Zung, 1965). The major components of depressive symptomatology were identified from the clinical literature and factor analytic studies. These components included: depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. (Radloff, 1977, p. 396)

**Validity and reliability.** The CESD Depression scale has high internal consistency with Cronbach alpha coefficients ranging from .85 with the general population and .90
for patients previously diagnosed with depression (Radloff, 1977). A number of studies have shown the CESD Depression scale to be a reliable measure for assessing the number, types and duration of depressive symptoms across a number of categories, including age, gender and race (Knight, Williams, McGee & Olaman, 1997; Radloff, 1977; Roberts, Vernon, & Rhoades, 1989). Because reliability is sample dependent, this researcher also calculated the Cronbach alpha score to test reliability.

*American College Health Association – National College Health Assessment.*

The second depression scale utilized for this study was from the National College Health Assessment (NCHA) that was developed in 1998 by the American College Health Association (ACHA). The NCHA is a “nationally recognized research study that can assist [colleges and universities] in collecting precise data about [college] students’ health habits, behaviors and perceptions” (American College Health Association, 2011). The NCHA survey includes 66 questions on topics related to health, health education, safety, alcohol and drug use, physical health, mental health, sexual behavior and contraception, impediments to academic performance, weight, nutrition and exercise, and demographic characteristics. The BTtoP survey section number six was adapted from question 30 of the NCHA. The BTtoP survey included five of the eleven items and asked students to indicate how often they have experienced symptoms of depression, including feeling hopeless, overwhelmed, exhausted (not from physical activity), sad and having difficulty functioning during the previous academic year. This scale is called the ACHA Depression scale in this study.
**Validity and reliability.** The NCHA was pilot tested in a 1998-99 academic year administration. The reliability and validity analysis included comparing relevant percentages with nationally representative databases; performing item reliability analyses comparing overlapping items with a nationally representative database; conducting construct validity analyses comparing ACHA-NCHA results with a nationally representative database, and conducting measurement validity comparing results of the ACHA-NCHA with a nationally representative database. (American College Health Association, 2011)

The NCHA was compared to national databases and was determined by the researchers to be both valid and reliable. Because reliability is sample dependent, this researcher also calculated the Cronbach alpha score to test reliability.

**Alcohol and drug use.** Alcohol and drug use has been shown to have a significant impact on a college student’s ability to be successful, including academic performance, persistence, and health and wellness (Musgrave-Marquart & Bromley, 1997; Yu, 2001). Ten questions/sections on the survey related to alcohol and drug use, including questions pertaining to the frequency and amount of consumption of alcohol and drugs, the motives for consuming alcohol, and the problems associated with alcohol consumption. Six of these questions related to the frequency and amount of alcohol consumed by students and were developed for the BTtoP survey. Section 24 included 20 items designed to understand the reasons why students chose to consume alcohol. It utilized the Drinking Motives Questionnaire – Revised, which included four subscales: Social Motivation, Conforming Motivation, Enhancement Motivation, and Coping Motivation. In addition, section 25 utilized the Core Survey on Alcohol and Drugs and had eleven items designed to measure the impact drinking had on students. Finally, three
questions asked students to report the frequency of their drug use, from “never used” to “used in the past week.” More information on these measures is included in the next part of this chapter.

**Frequency and amount of alcohol and drugs consumed.** Questions 18 to 23 on the survey asked students to indicate the frequency and amount of alcohol they consumed during specific time periods and questions 26 to 28 related to frequency of drug use. Nelson, Xuan, Lee, Weitzman, and Wechsler (2009) reported that two in five college students experience heavy episodic drinking and that frequent drinking has significant negative effects on college student academic performance, social connections and health. These questions were combined into four scales: “Drinks per Week”; “Drinks per Month”; “Binge Drinking”; and, “Drug Use.”

**Validity and reliability.** The BTtoP consortium developed these questions. They have not been measured against other national surveys and databases, nor have they been administered to a large sample size. However, the items related to frequency and amount of alcohol consumed include areas that are commonly considered factors of alcohol consumption in college students. Therefore this researcher assumed face validity exists on these questions.

**Drinking Motives Questionnaire-Revised.** Section 24 included 20 items related to why college students consume alcohol. The survey used the Drinking Motives Questionnaire-Revised (DMQ-R) that is based on a conceptual model developed by Cox and Klinger (Cooper, Russell, Skinner, & Windle, 1992). Cooper (1994) reported that Cox and Klinger identified two dimensions related to drinking, type of reinforcement
(positive or negative) and source of reinforcement (internal or external). Individuals may be motivated to drink to achieve a positive outcome or to avoid a negative outcome; and may be motivated to seek internal rewards such as management of internal feelings or an external reward, such as social acceptance. The questionnaire identified four primary motives related to college student drinking: social motives (positive reinforcement); drinking to conform (negative reinforcement); enhancement (positive reinforcement) and coping motives (negative reinforcement) (Cooper, 1994; Grant, Stewart, O’Connor, Blackwell, & Conrod, 2007). Students were asked to identify the reasons they drank alcohol, on a five-point Likert scale from “never” to “half of the time” to “always.” The DMQ-R has four subscales that were utilized for this study: Social Motivation, Conforming Motivation, Enhancement Motivation, and Coping Motivation that were analyzed to better understand why students at Art College choose to drink.

**Validity and reliability.** Cooper (1994) and Martens, Rocha, Martin, and Serrao (2008) confirmed that the four factors identified in the DMQ-R, social, conformity, enhancement and coping, are reliable and valid. Cooper (1994) found that the drinking motive scales were “adequately reliable” (p. 121). Martens, Rocha, Martin, and Serrao (2008) also found that both the validity and reliability of the four-factor model were accurate and that “individuals wishing to use the measure in prevention efforts, such as feedback-based interventions that examine motivations for drinking…can do so with increased confidence regarding its psychometric properties” (p. 294). Because reliability is sample dependent, this researcher also calculated the Cronbach alpha score to test reliability.
Core Survey on Alcohol and Other Drugs. Section 25 of the BTtoP survey included 11 items related to the consequences of drinking and other drug use on students. This question was taken from the Core Survey on Alcohol and Other Drugs (Core survey) question 21, which contained 19 items, ranging from “had a hangover” to “been hurt or injured.” The BTtoP survey section 25 included 11 of those items. The Core Survey on Alcohol and Other Drugs was developed in 1988 by the U.S. Department of Education (DOE) as a response to the Drug Free Schools and Community Act of 1986. The DOE appointed an instrument selection committee to develop the survey in order to “assess the nature, scope, and consequences of college student drug and alcohol use, as well as student awareness of relevant campus policies and their enforcement” (Presley, Meilman, & Lyerla, 1994). Licciardone (2003) reported that the Core survey results comprise the largest database on alcohol and other drugs in higher education. The Core survey contains 39 questions. The BTtoP survey included one question from the Core survey related to the consequences drinking or drug use has on students.

Validity and reliability. The Core survey “has been shown to be a valid and reliable instrument, with its psychometric properties in the areas of content-related validity, construct validity, test retest reliability, and item reliability having been well established” (Licciardone, 2003, p. 806). Because reliability is sample dependant, this researcher also calculated the Cronbach alpha score to test reliability.

Background and Demographic Questions

Five demographic/background questions were included on the survey: gender, on- or off-campus residence, incoming status (freshman or transfer student), the number of
hours worked at an on-campus job and the number of hours worked at an off-campus job. The purpose of these questions was to determine if any of these characteristics were related to the survey results, in particular the level of engaged learning and the overall mental health and well-being.

**Data Collection Methods**

The BTtoP survey has been administered at several colleges and universities in the United States. The survey was administered three times during one academic year at Art College: as a pretest at the beginning of the academic year to gather data about behavior and attitudes in the year prior to coming to college; at the end of the first semester (mid-point) to measure changes in behavior and attitudes half-way through the academic year; and at the end of the first academic year. The questionnaire was administered as a paper version for the pretest and mid-point data collection points and as an on-line survey using Survey Monkey for the final administration. The mid-point data collection was initiated to gather data for the BTtoP grant process. This research study focused on the overall effect the residential college program had on students; therefore, only results from the pretest and the final administration were analyzed. Personal identifiers were not used in the data collection of either the pre or posttest. This was done to ensure that students could respond to the questions anonymously. Therefore, data was aggregated to the site level (i.e., RCP treatment group) and individual responses from the pre- and posttest data collection could not be matched. This limited a number of the advanced statistical applications that could be utilized.
Access to the Survey

Ashley Finley, Assessment Coordinator for Associate of American Colleges and Universities and the author of this survey has provided authorization for the survey instrument to be utilized for this study (see Appendix B).

Institutional Access to the Data

The Vice President and Dean of Student Affairs at Art College have provided authorization for the survey data to be utilized for this study (see Appendix C). More information regarding the survey administration will be shared in chapter four.

Data Analysis

The data analysis was designed to address the three research questions that guide this study.

1. Does a statistically significant difference in the level of engaged learning occur for art students participating in a residential learning community compared to art students not participating in such a community?

2. Utilizing scales assessing stress, depression, alcohol and drug use, motivations for drinking alcohol, and the impact of alcohol use, does a statistically significant difference in level of mental health and well-being occur for art students involved in a residential learning community compared to art students not participating in such a community?

3. Is there a statistically significant relationship between engaged learning and student mental health and well-being between art students participating in a residential learning community and art students not participating in such a community?
The specific analysis for each of these questions is examined in the next section of this paper.

**Engaged Learning**

Research question one focused on engaged learning and the three sections were combined to create one engaged learning scale. Descriptive and inferential statistics, including t-tests, were utilized to determine if any differences in engaged learning existed between students in the non-residential college research studio (control group) and those participating in the residential college program (treatment group). Means analyses were conducted on the two populations. Linear correlation and multiple regression analyses were also conducted to test for significant relationships and to determine if any background characteristics or the mental health scales impacted students’ levels of engaged learning. For example, gender was examined to determine if it was associated with levels of engaged learning.

**Mental Health and Well-Being**

Research question two focused on student mental health and well-being. Nine scales were created, focusing on stress, depression and alcohol motives and alcohol impact. Four scales related to the frequency of drug and alcohol use were also created. Descriptive and inferential statistics, including t-tests, were utilized to determine if any differences existed in mental health and well-being between students in the non-residential college research studio (control group) and those participating in the residential college program (treatment group). Means analyses were also conducted on the two populations. Linear correlation and multiple regression analyses were conducted
to test for significant relationships to determine if any background characteristics were associated with students’ levels of mental health and well-being and if any correlations existed between the mental health scales. For example, gender was examined to determine if it was associated with mental health and well-being.

**Relationship Between Engaged Learning and Mental Health**

Research question three focused on the relationship between engaged learning and college student mental health and well-being. A linear correlation analysis was conducted on individual scales (e.g., Alcohol Impact and Stress) to determine if they were associated with engaged learning and to determine if any relationships existed between the scales.

**Demographic and Background Questions**

Five demographic questions were utilized to examine the relationship among gender, place of residence, and work on students’ engaged learning and mental health and well-being. A linear correlation analysis was conducted to determine if gender, work on-campus and work off-campus, was significantly associated with students’ engaged learning and/or mental health and well-being. A multiple regression analysis was also conducted to determine if place of residence, gender and the treatment group could be used to predict the outcome on any of the ten scales, one related to engaged learning and nine related to mental health and well-being, utilized in this study.

**Chapter Summary**

This study utilized a pre- and posttest, quasi-experimental design to examine the impact a residential learning community had on college student mental health. A
quantitative research design was selected to allow participants to answer more honestly and to gather data to compare the control and the treatment groups. The survey utilized for this study was developed by the Bringing Theory to Practice organization. It included one scale on engaged learning and nine scales designed to measure difference dimensions of mental health and well-being, specifically stress, depression, motivations for drinking and the impact of alcohol use. The results of the analysis of this survey will be discussed in Chapter IV.
CHAPTER IV

RESULTS

Mental health facilitates learning, development of skills, and healthy relationships while in college, and influences employment, productivity, relationships and physical health later in life. Problems in mental health—particularly in the context of education—may therefore have far-reaching consequences for our society’s long-term productivity and well-being. (Eisenberg and Nelson, 2011, p. 1)

This chapter presents key findings from the survey data that examined the impact a residence learning community has on art students’ mental health and well-being. An analysis on the pretest and posttest data was conducted to address this study’s questions. This chapter describes (a) the survey administration; (b) data preparation; (c) results from the descriptive statistical analysis; (d) information related to the ten scales utilized in this study; (e) analysis of data related to research question one; (f) analysis of data related to research question two; (g) analysis of data related to research question three; (h) results from the linear correlation analyses; (i) results from the multiple regression analysis; and (j) the conclusion of the chapter.

Survey Administration

Staff members from the Student Affairs division at Art College administered the first survey (pretest) in the research studio classrooms both to the treatment and control groups at the end of September in 2008. The treatment group included all 72 students who were enrolled in the residential college program (RCP); the control group included 89 students from six class sections of the non-RCP research studio course. The staff
member read the informed consent in the cover letter statement describing the survey (see Appendix A) and handed out a paper version of the survey. Students were told their participation in the study was voluntary and if they were interested in participating in the study they needed to acknowledge their agreement to participate by checking the box on page two. Participants were given 20 minutes to complete the survey and they were not provided an incentive to participate in the study. However, since the survey was administered in a required class via a paper version, the return rates were excellent. The Non-Residential College Research Studio (control group) had 70 of 89 students complete the survey for a response rate of 79%. The Residential College Program’s (RCPs) return rate was 96% with 69 of the 72 students completing the survey (see Table 1).

Students in the Research Studio course changed faculty members for the spring semester and were not available as a group for the final administration of the survey. Therefore, the final survey was sent to students via a recruitment email on May 1, 2009 from a Student Affairs staff member at Art College (see Appendix D). A reminder email was sent on May 6, 2009 and the survey was closed on May 8, 2009. Students who wished to participate in the study clicked on the link to the survey, which was housed in Survey Monkey (Survey Monkey, 2011). They were taken to the first page of the survey, which included the informed consent. Students had the option to provide their student ID number at the end of the survey to receive $10 on their student ID card to be used on campus as well as to be entered into a drawing to receive a $50 iTunes gift card. Students were not required to provide their ID number to participate in the survey. When surveys were completed, the ID numbers were deleted from the individual survey
responses and were copied into a Microsoft Word document to allow the researchers to provide the $10 to each student who completed the survey. The survey responses did not contain the student ID number and no individual responses could be connected to specific students. This limited this researcher’s ability to match the pre- and posttest survey responses. The response rates for the final administration of the survey were good, but not as strong as the first administration. Fifty-one of the 89 students in the Non-Residential Research Studio Course completed the survey for a response rate of 57%. The RCP response rate was 50% with 36 of the 72 students completing the survey (see Table 1).

Table 1. Response Rate

<table>
<thead>
<tr>
<th>Group</th>
<th># of students</th>
<th># of completed surveys (%)</th>
<th>Range of individual responses to questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control pretest</td>
<td>89</td>
<td>70 (79%)</td>
<td>37 - 69</td>
</tr>
<tr>
<td>Treatment pretest</td>
<td>72</td>
<td>69 (96%)</td>
<td>42 - 69</td>
</tr>
<tr>
<td>Control posttest</td>
<td>89</td>
<td>51 (57%)</td>
<td>21 - 51</td>
</tr>
<tr>
<td>Treatment posttest</td>
<td>72</td>
<td>36 (50%)</td>
<td>21 - 36</td>
</tr>
</tbody>
</table>

Data Preparation

After the first administration, completed surveys were entered into Survey Monkey (Survey Monkey, 2011) so that a quick and rudimentary analysis could be conducted on the data for the grant process. Survey Monkey assigned numerical values to the data. In order to provide a more thorough analysis of the data, this researcher imported the data into SPSS version 19. The second administration of the survey occurred via Survey Monkey. The results were also imported into SPSS version 19. This researcher recoded the data from both administrations to ensure consistency prior to
validating the data. The recoded data were entered into a new column in SPSS version 19. A frequency distribution in SPSS version 19 was conducted to ensure that data had not been entered incorrectly and that numerical variables fell within the acceptable range for each question and item. Data in SPSS version 19 were also crosschecked by visually comparing them with the outputs from the Survey Monkey analyses. Data that were missing or that fell outside of the acceptable range of response were considered “missing” and were assigned the value of “99.” Examples of the most common string variable conversion include the following: “yes” = 0, “no” = 1; “never” = 0, “rarely” = 1, “sometimes” = 2, “often” = 3, “very often” = 4; “strongly disagree” = 0, “disagree” = 1, “no opinion” = 2, “agree” = 3, “strongly agree” = 4.

Data Results

Results of Descriptive Statistics

The first step of data analysis was to compile descriptive statistics. Frequency distributions were utilized to examine demographic data related to the five background questions: gender, place of residence, enrollment status (freshman or transfer student), on-campus work and off-campus work. These data were compiled for both administrations of the survey and were organized by the control and treatment groups (see Table 2 for demographic frequencies and percentages). The gender distribution of the respondents remained fairly consistent between both groups and administrations of the survey, with the female responses ranging from 68.8% to 81.3% and the male percentages ranging from 18.8% to 31.3%. This distribution is consistent with the
Table 2. Demographic Information

<table>
<thead>
<tr>
<th></th>
<th>Control Pretest n (%)</th>
<th>Treatment Pretest n (%)</th>
<th>Control Posttest n (%)</th>
<th>Treatment Posttest n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>13 (21.7)</td>
<td>19 (29.2)</td>
<td>9 (18.8)</td>
<td>10 (31.3)</td>
</tr>
<tr>
<td>Female</td>
<td>47 (78.3)</td>
<td>46 (70.8)</td>
<td>39 (81.3)</td>
<td>22 (68.8)</td>
</tr>
<tr>
<td><strong>Residence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-Campus</td>
<td>50 (83.3)</td>
<td>67 (100)</td>
<td>41 (83.7)</td>
<td>31 (96.9)</td>
</tr>
<tr>
<td>Off-Campus</td>
<td>10 (16.7)</td>
<td>0</td>
<td>8 (16.3)</td>
<td>1 (3.1)</td>
</tr>
<tr>
<td><strong>Academic Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>57 (96.6)</td>
<td>66 (100)</td>
<td>49 (100)</td>
<td>32 (100)</td>
</tr>
<tr>
<td>Transfer</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>2 (3.4)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Work on-campus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 hours per week</td>
<td>25 (43.1)</td>
<td>31 (51.7)</td>
<td>18 (37.5)</td>
<td>14 (46.7)</td>
</tr>
<tr>
<td>1-5 hours per week</td>
<td>7 (12.1)</td>
<td>5 (8.3)</td>
<td>3 (6.3)</td>
<td>4 (13.3)</td>
</tr>
<tr>
<td>6-10 hours per week</td>
<td>15 (25.9)</td>
<td>15 (25)</td>
<td>12 (25)</td>
<td>5 (16.7)</td>
</tr>
<tr>
<td>11-15 hours per week</td>
<td>7 (12.1)</td>
<td>5 (8.3)</td>
<td>5 (10.4)</td>
<td>5 (16.7)</td>
</tr>
<tr>
<td>16-20 hours per week</td>
<td>1 (1.7)</td>
<td>4 (6.7)</td>
<td>6 (12.5)</td>
<td>2 (6.7)</td>
</tr>
<tr>
<td>21+ hours per week</td>
<td>3 (5.2)</td>
<td>0</td>
<td>4 (8.5)</td>
<td>0</td>
</tr>
<tr>
<td><strong>Work off-campus</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 hours per week</td>
<td>33 (62.3)</td>
<td>31 (56.4)</td>
<td>21 (43.8)</td>
<td>16 (53.3)</td>
</tr>
<tr>
<td>1-5 hours per week</td>
<td>2 (3.8)</td>
<td>9 (16.4)</td>
<td>4 (8.3)</td>
<td>2 (6.7)</td>
</tr>
<tr>
<td>6-10 hours per week</td>
<td>10 (18.9)</td>
<td>8 (14.5)</td>
<td>6 (12.5)</td>
<td>5 (16.7)</td>
</tr>
<tr>
<td>11-15 hours per week</td>
<td>2 (3.8)</td>
<td>5 (9.1)</td>
<td>6 (12.5)</td>
<td>4 (13.3)</td>
</tr>
<tr>
<td>16-20 hours per week</td>
<td>4 (7.5)</td>
<td>2 (3.6)</td>
<td>6 (12.5)</td>
<td>3 (10)</td>
</tr>
<tr>
<td>21+ hours per week</td>
<td>2 (3.8)</td>
<td>0</td>
<td>5 (10.4)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Notes:* n = number of respondents; (%)
incoming class at Art College in the fall of 2008, of whom 72% were female and 28% were male students (Art College, 2009).

Demographic question number 2 focused on “place of residence.” The RCP treatment group required students to live on campus to participate in the program. In the control group, 83.3% of students lived on campus during the pretest and 83.7% lived on campus at the time of the posttest. The treatment group had 100% of students living on campus during the pretest, and 96.9% during the posttest. Demographic question number three focused on whether the student began at Art College as a first-time freshman, transfer student or other. Because the RCP was housed in the first-year experience program at Art College, it is not surprising that the majority of respondents were freshmen, with the treatment pretest and posttest and the control posttest groups having 100% freshmen students.

Questions four and five asked students about working on- and off-campus. In the pretest, students were asked to predict how many hours they believed they would work in the coming academic year, with a range from 0 to 21+ hours per week. In the posttest, students were asked to indicate how many hours per week they had actually worked, from 0 to 21+. In both groups, more students reported they worked during the posttest than they had predicted at the first survey administration. In question four, which asked about students working on campus, 56.9% of students in the control group anticipated working a job on campus during the pretest; however, 62.5% reported at the posttest they worked at least one hour per week on campus. Similarly, 48.3% of students in the treatment group anticipated working at least one hour per week on campus while 53.3%
reported at the posttest they worked on campus. Question five related to students working off-campus. The results for question five were similar to question four with 37.7% of students in the control group anticipating working off-campus during the pretest and 56.2% reporting they worked during the posttest; 43.5% of students in the treatment group anticipated working off-campus and 46.7% actually worked at least one hour per week off-campus. For both questions related to working, no students in the treatment group reported anticipating or actually working 21+ hours on- or off-campus. This differed slightly from the control group, as 5.2% of students anticipated working on-campus 21+ hours per week with 8.5% reporting they actually worked 21+ hours per week on campus, and 3.8% anticipated working off-campus with 10.4% reporting they actually worked 21+ hours per week off-campus during the academic year. The frequency distributions for all of the demographic questions are listed in Table 2.

**Scales.** Fourteen scales were created in order to answer research questions one and two (see Table 3). These scales were from the survey questions related to engaged learning, stress, depression, alcohol impact and drinking motives. Four of the scales related to frequency of alcohol and drug use. Scale one, “Engaged Learning,” focused on engaged learning and combined three survey sections with 30 items (see Table 4). “Stress,” scale two, combines eight items in section four of the survey. Scales three through five focused on depression. Scale three, “CESD Depression,” combined all 20 total items from section seven. This scale utilized the Center for Epidemiologic Studies Depression Scale (Radloff, 1977). The fourth scale, “ACHA Depression” is a depression scale developed for the National College Health Assessment (American College Health
Association, 2009). “ACHA Depression” incorporated the six items in section six. Scale six, “All Depression,” combined the “CESD Depression” scale and “ACHA Depression” scales. Scales six through ten focused on alcohol use. “Alcohol Impact” included 11 items and scales seven through ten are from the Drinking Motives Questionnaire – Revised, with 20 items (Cooper, 1994). The subscales each have five items: scale seven is “Social Motivation,” scale eight is “Conforming Motivation,” scale nine is “Enhancement Motivation,” and scale ten is “Coping Motivation.”

Scales one through ten were constructed by averaging the total scores. For example, a scale that had seven items was summed and then divided by seven. To include a greater number of participants in the analysis, participants who answered a majority, at least 51% of the items, within the scale were also included. In this scenario, the scale score was derived from averaging the number of items the participant completed. This technique guarded against listwise deletion practices that have the potential to bias the results (Howell, 2008).

Because reliability is sample dependent, internal consistency estimates were conducted on scales one through ten (see Table 4). Nine of the ten scales, Engaged Learning, all three depression scales, the Alcohol Impact, and all four Drinking Motives subscales measured a strong reliability with a Cronbach alpha score of .70 or higher. The Stress scale measured a Cronbach alpha score lower than .56; therefore, reliability is limited for this study (Fraenkel & Wallen, 2006).
<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engaged Learning</td>
<td>Measured how often students engaged in activities such as discussing class topics with others outside of class, using facts learned in class to critique information outside of class, and other engaged learning activities.</td>
</tr>
<tr>
<td>Stress</td>
<td>Measured levels of stress based on items such as work, extracurricular activities, social life, sex, financial pressures, family issues, and concerns about college.</td>
</tr>
<tr>
<td>CESD Depression</td>
<td>Measured the frequency of symptoms of depression with the level of depression determined by the frequency of the symptoms per week.</td>
</tr>
<tr>
<td>ACHA Depression</td>
<td>Measured how often students experienced symptoms of depression, including feeling hopeless, overwhelmed, exhausted, sad and having difficulty functioning.</td>
</tr>
<tr>
<td>All Depression</td>
<td>Combined the CESD and ACHA Depression Scales.</td>
</tr>
<tr>
<td>Alcohol Impact</td>
<td>Measured the consequences of alcohol consumption on students, ranging from “had a hangover” to “been hurt or injured.”</td>
</tr>
<tr>
<td>Social Motivation</td>
<td>Measured how motivated students were to drink because of social reasons (to affiliate with others).</td>
</tr>
<tr>
<td>Conforming Motivation</td>
<td>Measured how motivated students were to drink to conform to their peers’ expectations (to comply with external social pressures that encourage an individual to conform by engaging in alcohol use).</td>
</tr>
<tr>
<td>Enhancement Motivation</td>
<td>Measured how motivated students were to drink to enhance their experiences (to facilitate positive emotions).</td>
</tr>
<tr>
<td>Coping Motivation</td>
<td>Measured how motivated students were to drink to cope with negative issues in their lives (to reduce and/or avoid a negative emotions).</td>
</tr>
<tr>
<td>Drinks per Week</td>
<td>Measured how many drinks students consumed per week and how many times per week they drank alcohol.</td>
</tr>
<tr>
<td>Drinks per Month</td>
<td>Measured how many drinks students consumed per month and how many times per month they drank alcohol.</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>Measured the amount of alcohol a student drank per sitting and their goal for drinking (e.g., drink to “feel a buzz” versus “to get drunk”).</td>
</tr>
<tr>
<td>Drug Use</td>
<td>Measured how often, if at all, students used marijuana, prescription drugs for recreational use and other drugs.</td>
</tr>
</tbody>
</table>
Four scales related to frequency of drug and alcohol use were also created (see Table 4). Scale 11, “Drinks per Week”, related to how much alcohol students consumed per week and combined questions 18 and 20. Scale 12, “Drinks per Month”, combined questions 29 and 21 and focused on how much alcohol students consume per month. Scale 13, “Binge Drinking,” included questions 22 and 23 and focused on the amount of alcohol a student drank per sitting and the students’ goal for drinking (e.g., drink to “feel a buzz” versus “to get drunk”). In question 23, the “none of the above” answer was identified as “missing” as it did not relate to the overall scale. Scale 14, “Drug Use”, included questions about the frequency of use of marijuana, prescription drugs for recreational use and other drugs. It combined questions 26 through 28. To identify a score for this scale, the answers were summed and then divided by three. Because these four scales only include two or three questions each, it was impossible to conduct a reliability analysis. Therefore the Cronbach alpha scores for these scales are undetermined and left blank in Table 4.

**Research Question One**

In order to answer question one, “Does a statistically significant difference in the level of engaged learning occur for art students participating in a residential learning community compared to art students not participating in such a community?” a means analysis was conducted on the Engaged Learning scale to understand if any differences existed between the control and treatment groups. Independent-samples *t* tests were conducted on this scale for both the pre- and posttest data to compare the control and treatment groups. Because pre- and posttest scores could not be matched for individual
students, independent-samples $t$ tests were utilized at the treatment and control groups level. The level of significance is identified as a small probability of obtaining the sample, or an unlikely outcome. In educational research, anything above value of $p = .05$, or a 5% chance of obtaining the results by chance, is considered not statistically significant (Fraenkel & Wallen, 2006, p. 228). The results of the pretest indicated the mean score of the Engaged Learning scale of the treatment group ($M = 2.47$, $SD = 0.44$) was not significantly different from the mean score of the control group ($M = 2.48$, $SD = 0.45$), $t(135) = 0.15$, $p = .88$. Similarly, the results for the posttest indicated the mean score of the Engaged Learning scale of the treatment group ($M = 2.76$, $SD = 0.43$) was not significantly different from the mean score of the control group ($M = 2.77$, $SD = 0.37$), $t(83) = 0.17$, $p = .87$. See Table 5 for more information on the means of the Engaged Learning scale.

Table 4. Means and Reliability of Scales

<table>
<thead>
<tr>
<th>Name</th>
<th># of items</th>
<th>Scale</th>
<th>Mean</th>
<th>S.D.</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engaged Learning</td>
<td>30</td>
<td>0 - 4</td>
<td>2.59</td>
<td>0.45</td>
<td>.88</td>
</tr>
<tr>
<td>Stress</td>
<td>8</td>
<td>0 - 4</td>
<td>2.14</td>
<td>0.58</td>
<td>.56</td>
</tr>
<tr>
<td>CESD Depression</td>
<td>20</td>
<td>0 - 4</td>
<td>1.62</td>
<td>0.57</td>
<td>.88</td>
</tr>
<tr>
<td>ACHA Depression</td>
<td>5</td>
<td>0 - 4</td>
<td>2.14</td>
<td>0.85</td>
<td>.84</td>
</tr>
<tr>
<td>All Depression*</td>
<td>26</td>
<td>0 - 4</td>
<td>1.72</td>
<td>0.59</td>
<td>.91</td>
</tr>
<tr>
<td>Alcohol Impact</td>
<td>11</td>
<td>0 - 5</td>
<td>0.65</td>
<td>0.63</td>
<td>.79</td>
</tr>
<tr>
<td>Social Motivation</td>
<td>5</td>
<td>0 - 4</td>
<td>1.89</td>
<td>1.07</td>
<td>.87</td>
</tr>
<tr>
<td>Conforming Motivation</td>
<td>5</td>
<td>0 - 4</td>
<td>0.27</td>
<td>0.60</td>
<td>.85</td>
</tr>
<tr>
<td>Enhancement Motivation</td>
<td>5</td>
<td>0 - 4</td>
<td>1.92</td>
<td>1.21</td>
<td>.92</td>
</tr>
<tr>
<td>Coping Motivation</td>
<td>5</td>
<td>0 - 4</td>
<td>0.85</td>
<td>0.85</td>
<td>.83</td>
</tr>
<tr>
<td>Drinks per Week</td>
<td>2</td>
<td>Open-ended</td>
<td>6.45</td>
<td>8.18</td>
<td>-</td>
</tr>
<tr>
<td>Drinks per Month</td>
<td>2</td>
<td>Open-ended</td>
<td>23.52</td>
<td>31.28</td>
<td>-</td>
</tr>
<tr>
<td>Binge Drinking</td>
<td>2</td>
<td>Open-ended</td>
<td>6.96</td>
<td>2.40</td>
<td>-</td>
</tr>
<tr>
<td>Drug Use</td>
<td>3</td>
<td>0 - 4</td>
<td>1.72</td>
<td>1.22</td>
<td>-</td>
</tr>
</tbody>
</table>

*Combined scales: CESD Depression and ACHA Depression.
Therefore, the answer to research question one for both the pretest and posttest analysis is that there is not a statistically significant difference in engaged learning for art students who participated in a residential learning community compared to those who did not participate in the community.

Research Question Two

Research question two focused on mental health and well-being, “Utilizing scales assessing stress, depression, alcohol use and drug use, does a statistically significant difference in level of mental health and well-being occur for art students involved in a residential learning community compared to art students not participating in such a community?” A means analysis was conducted on the nine mental health scales and the four drug and alcohol frequency scales in order to understand if any differences existed between the control and treatment groups. Independent-samples t tests were conducted on all of these scales for both the pre- and posttest data to compare the control and treatment groups. These scales are divided into several tables for ease of reading (see Tables 6 through 8).

Table 5. Engaged Learning Means Comparisons

<table>
<thead>
<tr>
<th>Scale</th>
<th>Condition</th>
<th>N</th>
<th>Mean</th>
<th>St. Dev</th>
<th>T</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
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<td>Treatment (pretest)</td>
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<td>0.44</td>
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<td>Control (posttest)</td>
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*p < .05; **p < .01
**Pretest analysis.** The results for the pretest (see Table 6) indicated the mean score of the Stress scale of the treatment group (M = 2.08, SD = 0.58) was not significantly different from the mean score of the control group (M = 2.09, SD = 0.60), t(134) = 0.05, p = .96. The results indicated the mean score of the CESD Depression scale of the treatment group (M = 1.65, SD = 0.52) was not significantly different from the mean score of the control group (M = 1.60, SD = 0.61), t(134) = -0.53, p = .60. Similar results occurred when analyzing the ACHA depression and the All Depression scales, in that there existed no statistically significant difference between the groups. There was also no significant difference in the two groups when analyzing the Alcohol Impact scale or the four Drinking Motives subscales. In the pretest, the t tests analysis comparing the treatment and control groups did not produce any statistically significant differences in the means for the nine scales related to mental health and well-being.

Independent-samples t tests were also conducted on the four scales related to frequency of drug and alcohol use (see Table 7). The results of the analysis of the pretest data indicated the mean score of the Drinks per Week and Drinks per Month scales were not significant. However, the t test for the Binge Drinking scale was significant t(43.90) = -2.48, p = .02*. The mean score of the treatment group (M = 7.89, SD = 1.21) was significantly higher than the mean score of the control group (M = 6.23, SD = 2.63) indicating that students in the treatment group engaged more frequently in binge drinking behaviors as compared to students in the control group. In addition, the t test for the Drug Use scale was significant t(91) = -5.49, p = .001***. The mean score of the
The treatment group (M = 2.45, SD = 1.11) was significantly higher than the mean score of the control group (M = 1.18, SD = .91) indicating that students in the treatment group engaged more frequently in drug use as compared to students in the control group.

Table 6. Mental Health and Well-Being Means Comparisons – Pretest

<table>
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<tr>
<th>Scale</th>
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<th>t</th>
<th>df</th>
<th>p-value</th>
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<td>0.05</td>
<td>134</td>
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*p < .05; **p < .01; ***p < .001
Table 7. Frequency of Drug and Alcohol Use Means Comparisons – Pretest

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<th>St. Dev</th>
<th>t</th>
<th>df</th>
<th>p-value</th>
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</table>

*p < .05; **p < .01; ***p < .001

Posttest analysis. In order to answer research question two, the means of the nine scales related to mental health and well-being were also tested for the posttest results (see Table 8). Similar to the pretest analysis, no significant differences existed in the means for the Stress, ACHA Depression, CESD Depression and All Depression scales. The results of the posttest indicated the mean score of the Alcohol Impact scale of the treatment group (M = .38, SD = 0.40) was also not significantly different from the mean score of the control group (M = 0.60, SD = 0.54), t(42) = 1.56, p = .13. The means of three of the four Drinking Motives subscales, Social Motivation, Conforming Motivation, and Enhancement Motivation were also not significant. However, the t test for the Drinking Motives subscale, Coping Motivation, was significant t(36.14) = 2.13, p = .04*. The mean score of the treatment group (M = 0.70, SD = 0.68) was significantly lower than the mean score of the control group (M = 1.32, SD = 1.15) indicating that students in the control group were more motivated to drink as a method of coping than students in
the treatment group. Of the nine scales related to mental health and well-being, the only significant difference between the control and treatment groups existed in the Drinking Motives subscale, Coping Motives. Therefore, the answer to research question two is that no significant difference exists between the treatment and control groups for the stress, depression scales, and the alcohol impact scale. However, a significant difference did exist in the Coping Motives scale between the two groups, with students in the treatment group having less motivation to drink as a coping mechanism as compared to students in the control group.

Independent-samples t tests were also conducted on the four scales related to frequency of drug and alcohol use (see Table 9). Recall that the pretest mean score of the Binge Drinking scale of the treatment group (M = 7.89, SD = 1.21) was significantly higher than the mean score of the control group (M = 6.23, SD = 2.63) and the pretest mean score of the Drug Use scale for the treatment group (M = 2.45, SD = 1.11) was significantly higher than the mean score of the control group (M = 1.18, SD = 0.91). However, the results of the analysis on the posttest data indicated that none of the means were significantly different for each of the four scales. After participation in the RCP, the means of both of these scales decreased and the t test indicated there was no significant difference between the means when comparing the control and treatment groups. These results need to be considered carefully because the data were analyzed at the aggregate level; therefore, without interval identifiers it is impossible to determine how much movement actually occurred in each of these groups. These results will be further discussed in Chapter V.
<table>
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<th>Scale</th>
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*p < .05; **p < .01; ***p < .001
Research Question Three

In order to answer research question three “Is there a statistically significant relationship between engaged learning and student mental health and well-being between art students participating in a residential learning community and art students not participating in such a community?” a linear correlation analysis was conducted between the Engaged Learning scale and the nine mental health and well being scales, including the Stress scale, three depression scales, and five alcohol scales. Green and Salkind (2008) report that a correlation coefficient of .10 = a small coefficient, .30 = a moderate coefficient, and .50 = a large coefficient. Analyses were conducted on both the pretest and posttest data.

Pretest analysis. No significant correlations existed between engaged learning and the nine scales related to mental health and well-being for the pretest treatment group. A total of six linear correlations between the Engaged Learning and mental health and well-being scales were significant with a p value of less than .05 for the control group (see Table 9). Stress and Engaged Learning had a small correlation ($r = .25, p < .05$), which means students who were more engaged also experienced a greater level of stress. CESD Depression, one of the three depression scales, had a small inverse correlation with Engaged Learning ($r = -.25, p < .05$). Therefore, students in the control group who reported higher levels of engagement experienced lower levels of depression. A moderate inverse correlation occurred between Engaged Learning and the Alcohol Impact scale ($r = -.40, p < .01$). Therefore students in the control group who experienced higher levels of engagement experienced fewer negative consequences from
their drinking. Three of the four Drinking Motives subscales also showed correlations to Engaged Learning. Social Motivation \((r = -.40, p < .01)\) and Coping Motivation \((r = -.41, p < .01)\) both had moderate inverse correlations to Engaged Learning. Students who were more engaged were less motivated to drink for social or coping reasons. A large inverse correlation occurred between the Engaged Learning scale and the Enhancement Motivation scale \((r = -.50, p < .01)\), meaning students who were more engaged were also less likely to be motivated to drink to enhance their experience.

Table 9. Frequency of Drug and Alcohol Use Means Comparisons – Posttest

<table>
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*\(p < .05\); **\(p < .01\); ***\(p < .001\)

**Posttest analysis.** Similar to the pretest data, correlation coefficients were computed to test the relationship between Engaged Learning and the nine mental health and well-being scales (see Table 10). No significant correlations existed between Engaged Learning and the nine mental health and well-being scales for the treatment group. In the pretest analysis of the control group, six scales had significant correlations to Engaged Learning, Stress, CESD Depression, Alcohol Motive and Social Motives,
Enhancement Motives, and Coping Motives. In the analysis of the posttest data of the control group, none of the nine mental health and well-being scales correlated with Engaged Learning. Therefore the answer to the third question is that no statistically significant relationship existed between engaged learning and mental health and well-being.

**Additional Correlation Analysis**

Additional analysis was conducted on both the pretest and posttest data to determine if correlations existed between demographic and background characteristics and the ten scales; and between the nine mental health and well-being scales. The demographic/background characteristics examined for correlations were gender, amount of hours worked off-campus, and amount of hours worked on-campus (See Table 10). Place of Residence was not examined as all students in the treatment group lived on campus and 83% of the students in the control group lived on campus (see Table 2). However, Place of Residence was examined during the multiple regression analyses (see Tables 9 through 11).

**Analysis of correlations between demographic characteristics and the ten scales.** Analysis of the pretest data for both the control and treatment groups showed no significant correlations between gender, on-campus work and any of the ten scales (see Table 10). Analysis of the posttest data for the control group showed five significant correlations between Gender and other scales (see Table 11). A small correlation existed between Gender and Engaged Learning ($r = .29, p < .05$), therefore, men were more
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N = 41-69; *p < .05; **p < .01; ***p < .001; **Bold = Control group; **Italicized = Treatment group
Table 11. Correlation Table for Demographics and Scales – Postest

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N = 41-69; *p < .05; **p < .01; ***p < .001; Bold = Control group; Italicized = Treatment group
engaged in their learning than women. Gender also correlated with all three depression scales. Moderate correlations existed between Gender and the CESD Depression scale ($r = .30$, $p < .05$), the ACHA Depression scale ($r = .36$, $p < .05$), and the All Depression scale ($r = .33$, $p < .05$). In this study, men in the control group were more likely to experience higher levels of depression. Men also experienced greater negative consequences from their drinking, as a large correlation existed between Gender and the Alcohol Impact. Students who worked more hours per week on-campus also experienced a greater negative impact from their drinking as compared to students who worked fewer hours per week on-campus.

Five significant correlations were found between Gender, On-Campus Work, and Off-campus Work during the analysis of the posttest data for the treatment group (see Table 8). Gender moderately correlated to Off-Campus Work ($r = .44$, $p < .05$), Stress ($r = .35$, $p < .05$), Alcohol Impact ($r = .46$, $p < .05$) and the Enhancement Motives scale ($r = .45$, $p < .05$). These results mean that men worked more hours off-campus, had higher levels of stress, experienced a greater negative impact from their drinking and were more likely to drink to enhance their experience as compared to women in this study. In addition, Off-Campus Work and Alcohol Impact also had a moderate correlation ($r = .49$, $p < .05$), meaning that students who worked more hours per week off-campus experienced significantly higher negative effects from their drinking.

**Analysis of correlations between mental health scales for pretest data.**

Analysis of the pretest data showed that the control group had an additional 12 linear correlations between the mental health scales that were significant with a $p$ value of less
than .05 (see Table 9). Two small correlations existed between Stress and two of the depression scales, Stress and ACHA Depression ($r = .31$, $p < .01$), and Stress and All Depression ($r = .27$, $p < .05$). Students who reported higher levels of stress also experienced greater levels of depression. Not surprisingly, the depression scales also correlated to each other. The CESD and ACHA Depression scales had a large correlation ($r = .77$, $p < .01$). Both the CESD Depression scale ($r = .98$, $p < .01$) and the ACHA Depression scale ($r = .87$, $p < .01$) also had large correlations to the All Depression scale. Since this scale is comprised of both the ACHA and CESD scales, this result was expected. The Coping Motives scale moderately correlated with the All Depression scale ($r = .34$, $p < .05$) and the CESD Depression scale ($r = .34$, $p < .01$) meaning that students who were more depressed were more likely to drink as a coping mechanism. Students who were motivated to drink for social enhancement and coping reasons experienced greater negative effects from their drinking, as the Alcohol Impact scale had moderate correlations with the Enhancement Motives ($r = .49$, $p < .01$), Social Motives ($r = .42$, $p < .01$), and Coping Motives ($r = .37$, $p < .05$). The Social Motives scale also had a large correlation with the Enhancement Scale ($r = .75$, $p < .01$) and a moderate correlation with the Coping Motives scale ($r = .39$, $p < .01$). The final correlation for the pretest control group existed between the Enhancement Motives and the Coping Motives scales ($r = .33$, $p < .01$).

Correlation coefficients were also determined on the pretest data for the treatment group, which resulted in a total of 16 significant correlations (see Table 9). Stress was found to have a significant correlation to all three of the depression scales, meaning that
similar to the control group, students who experienced more stress also had higher levels of depression. Stress had a small correlation with the CESD Depression scale ($r = .29$, $p < .05$). The ACHA Depression scale ($r = .46$, $p < .01$) and the All Depression scale ($r = .36$, $p < .05$) were both moderately correlated with stress. Similar to the control group, the depression scales all had large correlations with each other. All three depression scales also had a significant correlation with the Coping Motives scale: CESD and Coping Motives ($r = .28$, $p < .05$), ACHA Depression and Coping Motives ($r = .30$, $p < .05$), and All Depression and Coping Motives ($r = .30$, $p < .05$). This means that students who experienced higher levels of depression also were more motivated to drink for coping reasons. Moderate correlations also existed between the Coping Motives scale and the Social Motives ($r = .45$, $p < .01$) and Conform Motives ($r = .40$, $p < .01$) scales. Students who were more likely to drink for social reasons also experienced higher motivation to drink for coping reasons and to conform to their peers’ expectations. The Alcohol Impact scale correlated with three of the four Drinking Motives subscales. Small correlations existed between Alcohol Impact and Enhancement Motives ($r = .29$, $p < .05$) and Coping Motives ($r = .29$, $p < .05$). A moderate correlation also existed between the Alcohol Impact and Social Motives ($r = .30$, $p < .05$) scales. Finally, the Social Motives subscale also significantly correlated with the other three Drinking Motives subscales. The Social Motives subscales had moderate correlations with the Conform Motives ($r = .50$, $p < .01$), Enhancement Motives ($r = .59$, $p < .01$), and the Coping Motives ($r = .45$, $p < .01$) subscales.
Analysis of correlations between mental health scales for posttest data.

Analysis was also conducted on the posttest data to determine what, if any, correlations existed between the mental health and well-being scales (see Table 10). Ten items were found to have significant correlations in the control group. Stress had large correlations with all three depression scales, CESD ($r = .62$, $p < .01$), ACHA ($r = .65$, $p < .01$), and All Depression ($r = .65$, $p < .01$). Students in this study who had higher stress levels also experienced higher levels of depression. Stress also moderately correlated to the Coping Motives Scale ($r = .45$, $p < .05$), meaning that students who had higher levels of stress were more likely to drink to cope with their issues. Similar to the previous data, the depression scales also had large correlations to each other (see Table 10). A moderate correlation existed between the Coping Motives and Enhancement Motives scales ($r = .45$, $p < .05$), and a large correlation existed between the Coping Motives and Social Motives scales ($r = .53$, $p < .01$). Finally, a large correlation existed between the Enhancement Motives and Social Motives scales ($r = .71$, $p < .01$). Students who were motivated to drink for social reasons were also more likely to drink to enhance their experience.

An analysis of the posttest data for the treatment group exhibited eleven correlations between the mental health and well-being scales. Similar to the control group, all three depression scales had significantly large correlations with each other (see Table 10). The Stress and Alcohol Impact scales had a large correlation ($r = .59$, $p < .01$). Students who experienced higher levels of depression were also more likely to be more motivated to drink to conform and to cope. The CESD Depression had large correlations
with the Conforming Motives ($r = .52, p < .05$) and Coping Motives ($r = .58, p < .01$) scales. The All Depression scale had a moderate correlation with the Conforming Motives scale ($r = .49, p < .05$), and a large correlation ($r = .54, p < .05$) with the Coping Motives scale. Students who drank for enhancement also experienced more significant impacts from their alcohol consumption. A large correlation existed between the Alcohol Impact and Enhancement Motives scales ($r = .74, p < .01$). The Enhancement Motives scale also had a large correlation with the Social Motives scale ($r = .53, p < .05$). Finally, the Coping Motives scale also had a large correlation with the Social Motives scale ($r = .62, p < .01$) and a moderate correlation with the Conforming Motives scale ($r = .49, p < .05$). These results will be further discussed in Chapter V.

**Multiple Regression Analyses**

After the linear correlation analysis was completed, ten different multiple regression analyses were conducted on the posttest data to determine if the independent variables (a) gender, (b) place of residence, and (c) treatment group could be utilized to predict the outcome of the dependent variables. The dependent variables, or outcomes in this study, were the ten scales (a) Engaged Learning, (b) Stress, (c) CESD Depression, (d) ACHA Depression, (e) All Depression, (f) Alcohol Impact, (g) Social Motivation, (h) Conforming Motivation, (i) Enhancement Motivation, and (j) Coping Motivation. The equation utilized to predict the level of each of the scales, or dependent variable, is

$$\hat{Y} = B_0 \text{ (constant)} + B_1 X_1 \text{ (Place of Residence)} + B_2 X_2 \text{ (Gender)} + B_3 X_3 \text{ (Treatment Group)}$$

where $\hat{Y}$ is the outcome, $B_0$ is an additive constant, and $B_1$ through $B_3$ represent the slope weights for the three independent variables $X_1$ through $X_3$ (Green & Salkind, 2008, p.
Multiple regression analyses of Stress, CESD Depression, ACHA Depression and All Depression Scales. The multiple regression analyses did not yield significant results where gender, place of residence, and treatment group could be utilized to predict the posttest outcome of four of the ten scales, (a) Stress, (b) CESD Depression, (c) ACHA Depression, and (d) All Depression (see Table 12). However, the multiple regression analyses yielded significant results for (a) Engaged Learning, (b) Alcohol Impact, (c) Social Motivation, (d) Conforming Motivation, (e) Enhancement Motivation, and (f) Coping Motivation scales.

Table 12. Multiple Regression Analyses of Stress and Depression

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<tr>
<th>Outcome</th>
<th>Independent Variable</th>
<th>Unstandardized beta - B(S.E.)</th>
<th>Standardized beta</th>
<th>t</th>
<th>p-value</th>
<th>R²</th>
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</thead>
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<td></td>
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<tr>
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<td>.03</td>
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<td>Residence</td>
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n = 49-67; *p < .05; **p < .01; ***p < .001
**Multiple regression analyses of Engaged Learning.** A multiple regression analysis was conducted to evaluate how well place of residence, gender and the treatment group predicted the level of Engaged Learning (see Table 13). Applying the regression equation:

The predicted level of Engaged Learning = 2.75(constant) + 0.04(Residence) + 0.22(Gender) + -0.10(Treatment Group).

Table 13. Multiple Regression Analyses of Engaged Learning

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Unstandardized beta - B(S.E.)</th>
<th>Standardized beta - β</th>
<th>t</th>
<th>p-value</th>
<th>R²</th>
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<tr>
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<td>-1.14</td>
<td>.260</td>
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</table>

n = 49-67; *p < .05; **p < .01; ***p < .001

The regression equation for Engaged Learning with the three predictors (Place of Residence, Gender and Treatment Group) was not significant. In addition, Place of Residence and Treatment Group were not independently significant predictors of Engaged Learning. However, when controlling for Residence and Treatment Group, Gender was a significant predictor of Engaged Learning (B = 0.22, t(2.12), p < 0.05, β = 0.24). The results of this regression analysis indicated that male students had higher levels of Engaged Learning.

**Multiple regression analyses of Alcohol Impact.** A multiple regression analysis was conducted to evaluate how well Place of Residence, Gender and the Treatment Group predicted the level of impact alcohol had on students (see Table 14). Applying the regression equation:
The predicted level of Alcohol Impact = 0.51(constant) + -0.31(Residence) + 0.46(Gender) + -0.30(Treatment Group).

Table 14. Multiple Regression Analyses of Alcohol Impact

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Unstandardized beta - B(S.E.)</th>
<th>Standardized beta - β</th>
<th>t</th>
<th>p-value</th>
<th>R²</th>
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<td>.31</td>
</tr>
<tr>
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<td>0.95</td>
<td>.350</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
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<td>.010*</td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>-0.30(0.13)</td>
<td>-0.31</td>
<td>-2.35</td>
<td>.020*</td>
<td></td>
</tr>
</tbody>
</table>

n = 49-67; *p < .05; **p < .01; ***p < .001

The regression equation for Alcohol Impact with the three predictors (Place of Residence, Gender, and Treatment Group) was significant, R² = .31, adjusted R² = .26, F (3, 39) = 5.91, p < .05. While Place of Residence was not a predictor of Alcohol Motives, two of the three independent variables were linearly related. Gender (B = 0.46, t(3.02), p < .05, β = .43) and the Treatment Group (B = -0.30, t(-2.35), p < .05, β = -0.31) predicted the level of Alcohol Impact. The results of this regression analysis suggest that male students and students in the control group experienced a greater negative impact from consuming alcohol.

**Multiple regression analyses of Drinking Motives subscales.** A multiple regression analysis was also conducted on the Social Motives, Conforming Motives, Enhancement Motives and the Coping Motives subscales at posttest to evaluate how well Place of Residence, Gender and the Treatment Group predicted what motivated students to drink alcohol. Applying the regression equation for each subscale

the predicted level of Social Motives = 2.31(constant) + -0.49(Residence) + 0.50(Gender) + -0.65(Treatment Group);
the predicted level of Conforming Motives = 0.39(constant) + -0.63(Residence) + 0.31(Gender) + -0.13(Treatment Group);
the predicted level of Enhancement Motives = 2.03(constant) + 1.30(Residence) + 0.83(Gender) + -0.70(Treatment Group); and
the predicted level of Coping Motives = 1.31(constant) + -0.89(Residence) + 0.44(Gender) + -0.70(Treatment Group) (see Table 15 for the results).

Table 15. Multiple Regression Analysis of the Drinking Motives Subscales

<table>
<thead>
<tr>
<th>Outcome Motives</th>
<th>Independent Variable</th>
<th>Unstandardized beta - B(S.E.)</th>
<th>Standardized beta - β</th>
<th>t</th>
<th>p-value</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Motives</td>
<td>Constant</td>
<td>2.31(0.22)</td>
<td></td>
<td>10.51</td>
<td>.001**</td>
<td>.14</td>
</tr>
<tr>
<td></td>
<td>Residence</td>
<td>-0.49(0.75)</td>
<td>-0.10</td>
<td>-0.65</td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>0.50(0.36)</td>
<td>0.23</td>
<td>1.42</td>
<td>.16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>-0.65 (0.30)</td>
<td>-0.33</td>
<td>-2.19</td>
<td>.03*</td>
<td></td>
</tr>
<tr>
<td>Conform Motives</td>
<td>Constant</td>
<td>0.39(0.19)</td>
<td></td>
<td>2.01</td>
<td>.05*</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Residence</td>
<td>-0.63(0.65)</td>
<td>-0.16</td>
<td>-0.97</td>
<td>.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>0.31(0.31)</td>
<td>0.17</td>
<td>1.00</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>-0.13(0.26)</td>
<td>-.08</td>
<td>-0.48</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>Enhance Motives</td>
<td>Constant</td>
<td>2.03(0.25)</td>
<td></td>
<td>8.09</td>
<td>.001**</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Residence</td>
<td>1.30(0.86)</td>
<td>0.22</td>
<td>1.51</td>
<td>.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>0.83(0.41)</td>
<td>0.30</td>
<td>2.04</td>
<td>.05*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>-0.70(0.34)</td>
<td>-0.28</td>
<td>-2.03</td>
<td>.05*</td>
<td></td>
</tr>
<tr>
<td>Coping Motives</td>
<td>Constant</td>
<td>1.31(0.21)</td>
<td></td>
<td>6.11</td>
<td>.001**</td>
<td>.16</td>
</tr>
<tr>
<td></td>
<td>Residence</td>
<td>-0.89(0.73)</td>
<td>-0.19</td>
<td>-1.22</td>
<td>.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>0.44(0.35)</td>
<td>0.20</td>
<td>1.27</td>
<td>.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Treatment</td>
<td>-0.70(0.29)</td>
<td>-0.40</td>
<td>-2.43</td>
<td>.02*</td>
<td></td>
</tr>
</tbody>
</table>

n = 49-67; *p < .05; **p < .01; ***p < .001
The regression equation for the Social Motives subscale with the three predictors (Place of Residence, Gender, and Treatment Group) was not significant. While Place of Residence and Gender were not a predictor of Social Motives, the Treatment Group (B = -0.65, t(-2.19), p < .05, β = -0.33) predicted Social Motivation. The results of this regression analysis suggest that students in the control group had stronger social motivations for drinking alcohol as compared to students in the treatment group.

The regression equation for the Conforming Motives subscale with the three predictors (Place of Residence, Gender, and Treatment Group) was not significant. In addition, Residence, Gender, and participation in the Treatment Group were not predictors of this subscale.

The regression equation for the Enhancement Motives subscale with the three predictors (Place of Residence, Gender, and Treatment Group) was significant, R² = .50, adjusted R² = .25, F (3, 39) = 4.34, p < .05. While Place of Residence was not a predictor of Enhancement Motives, two of the three independent variables were linearly related. Gender (B = 0.83, t(2.04), p < .05, β = 0.30) and the Treatment Group (B = -0.70, t(-2.03), p < .05, β = -0.28) predicted the Enhancement Motives scale (see Table 15). Men were more likely than women to drink to enhance their experience and students in the treatment group were less motivated by enhancement to drink, as compared to the control group.

The regression equation for the Coping Motives subscale with the three predictors (Place of Residence, Gender, and Treatment Group) was not significant. While Place of Residence and Gender was not a predictor of Coping Motives, the Treatment Group
(B = -0.70, t(-2.43), p < .05, \( \beta = -0.40 \)) predicted Coping Motives (see Table 15). As compared to the control group, students in the treatment group were less likely to drink as a coping mechanism.

**Chapter Summary**

This study sought to assess the impact a residential learning community had on engaged learning and the mental health and well-being of art students attending an urban college. This quasi-experimental design included pre and posttest data for both the treatment and control groups. The pretest administration yielded very strong response rates and the posttest administration yielded lower, but still significant response rates.

Research Question One was answered by conducting a means analysis and independent-samples t-tests comparing the control and treatment group data for both administrations of the survey. The results indicated that there was not a statistically significant difference in the level of engaged learning between the two groups.

Research Question Two was answered by conducting a means analysis and independent-samples t-tests on the nine mental health scales for both the pre and posttest data. The results indicated that a statistically significant difference between the two groups existed on the Coping Motivation scale for the pretest data. Students in the treatment group were less motivated to drink alcohol to cope with their problems as compared to students in the control group. In addition, a comparison of the means for the scales related to frequency of alcohol and drug use was conducted. A statistically significant difference existed in the Binge Drinking and Drug Use scales during the pretest, indicating that students in the treatment group engaged in binge drinking and
drug use at a higher rate than students in the control group. At the posttest, no significant differences existed in these scales and the means of these scales were lower at the posttest for the treatment group. While the statistical analysis was somewhat limited by the aggregation of data to the site level, it appears as if students who participated in the residential college program decreased their alcohol and drug use by the end of the program, as compared to students in the control group.

A linear correlation analysis was conducted between the Engaged Learning scale and the nine mental health and well being scales to answer Research Question Three. The posttest analysis showed no significant correlations existed between the Engaged Learning Scale and the mental health and well-being scales for both the treatment and control groups. Therefore the answer to question three is that no statistically significant relationship exists between engaged learning and mental health and well-being.

Additional linear correlation analyses were conducted to understand the correlation between each scale and demographic information. A number of correlations were identified, including stress and depression; drinking motivation and alcohol impact; coping motivation and depression; and gender and engaged learning. In order to determine if gender, place of residence, and participation in the treatment group could predict the results of each of the several scales, a multiple regression analysis was conducted. Gender was a strong predictor of the Engaged Learning, Enhancement Motives and Alcohol Impact scales. When controlling for Place of Residence and the treatment group, men were more engaged with their learning, were more motivated to drink for enhancement purposes, and experienced greater negative consequences from
their drinking as compared to women. When controlling for gender and place of residence, students who participated in the treatment group were less motivated by enhancement, social and coping reasons to drink and experienced fewer negative consequences from their drinking, as compared to students in the control group.

Chapter V will further discuss the results of the data analyses presented in this chapter. It will include a discussion of the key findings and implications, recommendations for professional practice, the research limitations, and recommendations for further research.
CHAPTER V

SUMMARY, DISCUSSION, LIMITATIONS AND RECOMMENDATIONS

America faces a crisis in the quality and quantity of learning in college. One factor contributing to this educational emergency is the harm caused to students’ academic potential and success by behavioral health problems – and by the failure of colleges and universities to recognize and respond to these problems holistically. (Keeling, 2012, p. 2)

Summary of Study

The purpose of this study was to assess the impact a residential learning community within an urban art college had on engaged learning and the mental health and well-being of art students. This study focused on three specific sets of mental health issues: stress, depression, and alcohol and drug use. These issues have been shown to have a significant impact on students’ academic performance, retention and graduation from college (American College Health Association, 2011; Eisenberg, Gollust, Golberstein, & Hefner, 2007; Slutske, 2005; Winter & Yaffe, 2000). In addition, a number of studies have shown that artists are more susceptible to mental health concerns as compared to other populations (Andreason, 2005; Jamison, 1995; Ludwig, 2005). This study was developed because college student mental health has a significant impact on the academic experience and because artists, and specifically art students, appear to be a population more vulnerable to mental health concerns.

For the purposes of this study, engaged learning was defined as a “process in which students are active participants in learning rather than passive recipients of
information” (American Association of Colleges and Universities, n.d.). Engaged learning has been linked to improved student cognitive growth and development, academic achievement, and persistence and graduation from college (National Survey of Student Engagement, 2007; Pascarella & Terezini, 2005; Tinto, 1993). However, limited research exists on the link between student engagement and mental health and well-being. One study found that students who were more engaged on campus experienced higher levels of stress, exhaustion and anxiety as compared to students who were less engaged. However, the same study also found that higher levels of student engagement resulted in lower levels of substance use and abuse (The National Center on Addiction and Substance Abuse, 2005). Studies of middle school and high school students have also shown that higher levels of student engagement reduce substance use and abuse (Bryant, Schulenberg, O’Malley, Bachman, & Johnston, 2003; The National Center on Addiction and Substance Abuse at Columbia University, 2005; Zill, Nord, & Loomis, 1995). Additional research indicates that students who participate in residential learning communities (RLCs) are more satisfied with their college experience, experience academic gains, and use alcohol less frequently as compared to students not in RLCs (Brower, Golde, & Allen, 2003; Pasque & Murphy, 2005; Wawrzynski & Jessup-Anger, 2010). One of the limitations of the literature is that little research exists that explores the impact of engaged learning, and specifically participation in a residential learning community, on college student mental health and well-being. This study was developed to begin to address the gap in the literature.
This research study was conducted at Art College, an urban art school. This quasi-experimental design was implemented to assess the impact engaged learning had on student mental health and well-being, specifically students’ levels of stress, depression and alcohol use. This researcher compared survey results from students participating in a residential college program (treatment group) to students in a control group, non-residential program. Students were given the survey at the beginning of their freshman year (pretest) and were administered the same survey at the end of their first year (posttest). Both administrations of the survey yielded strong response rates, from 50% to 96%. This chapter identifies and discusses the key findings and conclusions from this study, including a review of the limitations of this research, and recommendations for professional practice and further research.

**Summary and Discussion of Key Findings**

Several important implications can be derived from the results of this quantitative study. In this section of the chapter, each research question that guided this study will be reviewed and key findings and implications will be discussed. Additional findings, such as correlations between mental health scales and demographic information will also be examined.

**Research Question One – Engaged Learning**

Research Question One asked, “Does a statistically significant difference in the level of engaged learning occur for art students participating in a residential learning community compared to art students not participating in such a community?” A means analysis and independent-samples t-tests were conducted on the Engaged Learning scale
to address this question. The results indicate that a statistically significant difference in Engaged Learning did not exist between the two groups. Without the ability to match individual responses, these results have less statistical power to determine differences between the pretest and posttest results.

These results were surprising to this researcher. The residential college program’s (RCP’s) curriculum at Art College involved a number of activities that were designed to increase student engagement. Each student in the RCP participated in a civic engagement project and active learning activities, such as the feast project where students prepared meals and addressed nutrition and wellness issues, were implemented. In addition, students remained with the same faculty member for the entire academic year as compared to the control group, where students changed faculty during the spring semester. This researcher hypothesized that the community created by spending the entire year together, along with the continuity of curriculum and activities, would allow students to experience deeper engagement with this course. However, this deeper engagement did not occur. Perhaps the Engaged Learning scale was not adequate to identify true engagement at an art school. One assumption is that an art curriculum, in particular a studio class, requires high levels of engagement and the difference between the two groups were not discernable with this study. In addition, as mentioned later in the limitations section, the Engaged Learning scale may have been improved if the questions related more directly to existing measures of student engagement such as the National Survey of Student Engagement’s Deep Learning scales.
A review of the literature related to residential learning communities found that students who participated in residential learning communities (RLCs) often experienced academic benefits such as improved academic performance and higher GPAs (Inkelas, 2008; Pasque & Murpy, 2005; Pike, 1999). However, the literature does not specifically address student engagement. Suggestions for further research on this topic will be discussed later in this chapter.

**Gender and Engaged Learning.** The results of the multiple regression analysis of the posttest data indicated that gender could be used to predict the level of Engaged Learning. In this study, men had higher levels of engagement than women. These results contradict a recent analysis of the National Survey of Student Engagement survey data. Kinzie, et al. (2007) found that, in a study of more than 450,000 undergraduate college students, women engaged more frequently in academically challenging activities and that men were less likely to participate in active and collaborative learning activities. Other researchers have indicated that women are more likely to seek academic assistance, have higher educational aspirations, and are more likely to engage with their faculty outside of class (Bae, Choy, Geddes, Sable, & Snyder, 2000; Sax, Bryant, & Harper, 2005; Wright, 2003). A larger number of women attend Art College as compared to men and the large percentage of women who completed the survey may have impacted these results. However, these results are compelling, as it appears the art school experience may influence men to be more engaged than women. This question should be considered for further research to determine if factors about the Art College experience contributed to men having higher levels of engagement as compared to women in the study.
Research Question Two – Mental Health and Well-Being

The study’s second research question asks, “utilizing scales assessing stress, depression, alcohol and drug use, motivations for drinking alcohol, and the impact of alcohol use, does a statistically significant difference in level of mental health and well-being occur for art students involved in a residential learning community compared to art students not participating in such a community?” A means analysis and independent-samples t-tests were conducted on nine mental health scales to determine the answer to this research question. The results indicated that no significant differences existed among any of the mental health scales in the pretest data between the treatment and control groups. However, in the posttest analysis, Coping Motivation was significantly different between the two groups. The mean score of the treatment group (M = 0.70, SD = 0.68) was significantly lower than the mean score of the control group (M = 1.32, SD = 1.15). Students in the residential college program were less likely to drink due to coping motivations. Items in the Coping Motivation subscale included asking students to determine how frequently they drank: “To forget your worries”; “To cheer up when you are in a bad mood”; and “To forget your problems.” Cooper (1994) found that coping motivation positively correlated with heavy drinking and alcohol-related problems. Coping motivation has also been found to predict drinking problems among undergraduates (Kassel, Jackson, & Unrod, 2000). Therefore, students who are less likely to drink for coping reasons may also experience fewer problems associated with their alcohol consumption. This result indicates that the RCP positively impacted students’ mental health and well-being, in terms of some of their alcohol use.
Because data were aggregated to the site level, it is impossible to determine if individual students in the treatment group experienced a decrease in the drinking as a result of coping motivation. However, a significant difference between the control and treatment groups at the end of the program did exist. This may be due to a number of reasons. For example, students in the RCP may have created a stronger sense of community and provided greater support to each other. Perhaps experiencing a stronger sense of community allowed students in the treatment group to identify resources to help them discuss their concerns and to help them deal with their problems. Students in the treatment group were also provided information on health-related concerns by their faculty and their RA on a number of occasions. While this information was not specifically related to substance use and abuse, students were presented with a number of resources related to healthy living, mediation and mindfulness, and exercise and nutrition. This may have given students in the treatment group additional means of dealing with concerns, so they did not utilize alcohol as a coping mechanism.

An analysis of the means and an Independent Samples $t$ test was also conducted on the alcohol and drug use frequency scales to help answer question two. The most notable items from these analyses related to binge drinking and drug use. Students in the treatment group had significantly higher scores for both the “Binge Drinking” and “Drug Use” scales than students in the control group at the pretest. However, the treatment group means declined at the posttest and the control group means increased for both of these scales. At the end of the study, no significant difference was found between the control and treatment groups for these two scales. These results are somewhat consistent
with previous research that indicated that students who participated in residential learning communities (RLCs) engaged less frequently in binge drinking than students not in RLCs (Brower, Golde, & Allen, 2003). Similar to reasons identified for the differences in the Coping Motivation subscale, these results may be due to students feeling a stronger sense of community which may have afforded them opportunities to engage in social experiences beyond partying. It also makes sense that if students are less motivated to drink to cope with negative issues in their lives, they may drink less during one sitting (e.g., less binge drinking). Overall, the strongest impact of the residential college program appears to have been on the reasons students drank alcohol, the amount of alcohol they drank at one sitting, and their use of marijuana, prescriptions drugs for recreational use, and other drugs.

The multiple regression analysis identified a number of items that could be used to predict the scores of the mental health scales. In addition, the linear correlation analysis identified a number of items in these scales that had significant correlations. The next section discusses the linkages between Alcohol Impact, Gender, and participation in the Treatment Group; Drinking Motives, Gender, and participation in the Treatment Group; Stress, Depression, and Coping Motivation; and Drinking Motives and Alcohol Impact.

**Alcohol Impact, Gender, and the Treatment Group.** The multiple regression analysis of the Alcohol Impact scale showed that gender and participation in the treatment group could be used to predict the level of impact a student experienced from consuming alcohol. Women in this study experienced fewer negative effects from their
drinking as compared to men. A large body of previous research exists indicating that male students often experience greater negative consequences from their drinking (Thombs, Beck, & Mahoney, 1993; Weitzman, Nelson, & Wechsler, 2003; Wright, 2003). Recent research has indicated, however, that female students are binge drinking at a higher rate than previously reported and are often experiencing more serious, negative consequences from their drinking as compared to men (American College Health Association, 2009; Wechsler & Wuethrich, 2002; Wechsler et al., 2002).

Male students at Art College experienced a larger number of negative consequences from their drinking as compared to female students. It should be noted that a large percentage of the participants in this study were women, as 69% of the survey participants in the posttest were female. These gender differences among the participants may have contributed to this finding; however, these results indicate that women at Art College experienced fewer negative effects from their drinking as compared to men. This finding contradicts recent research, and is an area that demands further study to determine if the experience at Art College impacts drinking and the negative behaviors and consequences associated with consuming alcohol. Of particular interest would be to compare female art students at other colleges to women in other majors to determine if major field of study impacts drinking behaviors and consequences.

The multiple regression analysis also indicated that students who participated in the treatment group experienced fewer negative consequences from their drinking as compared to students in the control group. This may be linked to the questions about frequency of drinking and drug use. Students in the treatment group appear to have
engaged in binge drinking less after participating in the RCP. While the analysis is somewhat limited, the RCP appears to have contributed to students experiencing fewer negative impacts from their drinking. These results are also consistent with the research on residential learning communities (RLC) that indicate that participation in an RLC reduces alcohol use and abuse, as indicated earlier in this chapter.

**Drinking Motives, Gender, and the Treatment Group.** Students in the treatment group were less likely to drink because of Social Motivation, Enhancement Motivation, and Coping Motivation. These results indicate that students in the residential college program (RCP) identified other methods to engage socially, to increase their fun at events, and to cope with difficult issues. The RCP was designed to help students integrate more fully into their educational experience and these results are consistent with the goals of Art College’s residential college program. Students were provided access to more frequent social activities by their Resident Advisor and both the residence life staff and the faculty attempted to facilitate stronger communities, where peer support was a key component of many of the activities. These results indicate aspects of the RCP appear to have successfully minimized some of the reasons students choose to drink alcohol.

In addition, gender predicted how much students were motivated to drink to enhance their experiences. Men were more likely than women to drink to enhance their experiences. This may be due to the small number of men in the sample. However, it also may be an indication that men utilize alcohol to create positive feelings. Thombs, Beck and Mahoney (1993) found that men were more likely to drink to have a good time
and women were more motivated to drink to allay emotional distress. Like a number of findings from this study, this is an area that should be further researched.

**Depression, Stress, and Coping Motivation.** In this study, depression was found to have significant correlations to both the Stress and Coping Motivation scales. Depression correlated to Stress for both groups in the pretest and the control group in the posttest. While there was no difference in the individual stress and depression scales when comparing the results of the treatment group to the control group for the posttest results, it is notable that Stress and Depression did not correlate for the treatment group posttest. The RCP intervention may have mitigated the correlation between stress and depression. While it is difficult to determine why the results of the treatment group posttest did not indicate a correlation between these two items, the fact that they correlated so strongly for three of the four groups, warrants further discussion.

In the 2011 administration of the National College Health Assessment, 53% of students rated their level of stress during the previous 12 months as being above average (American College Health Association). A national study including more than 8500 college students found that 23% of the students tested positive for depression (Eisenberg & Nelson, 2009). It is clear that stress and depression are significant factors impacting college students. The results of this current study do not determine if students who are already depressed experience greater levels of stress or if stress has an impact on depression. However, these results indicate that colleges and universities should identify ways to help students manage both of these issues. Higher education administrators and
faculty should pay particular attention to students who show high levels of stress, as they may also be depressed.

In addition, a significant correlation existed between depression and Coping Motivation. This correlation means that students who had higher levels of depression were more likely to be motivated to drink as a coping mechanism. These results are not surprising, as a number of researchers have found that individuals often drink as a method to deal with distress, depression or anxiety (Cooper, Agocha, & Sheldon, 2000; Murphy, Hoyme, Colby, & Borsari, 2006). The results of this study indicate that students at Art College who were depressed may have engaged in self-destructive ways to deal with their concerns. It is imperative that colleges and universities pay attention to this issue and realize that students who are drinking a lot may be doing so because of underlying issues. In addition, staff and faculty need to pay attention to students who are depressed, as they may be more susceptible to drinking and other self-harming behaviors.

Research Question Three – Engaged Learning and Mental Health

The third question in this study asks, “is there a statistically significant relationship between engaged learning and student mental health and well-being between art students participating in a residential learning community and art students not participating in such a community?” The results of this study indicated that a statistically significant relationship did not exist between engaged learning and mental health and well-being. This was, perhaps, the most disappointing result of the analyses. One of Art College’s primary motivations for developing the residential college program (RCP), and the intent behind the Bringing Theory to Practice grant, was to impact student mental
health and well-being through engaged learning. The results from the Art College residential college program indicate that engaged learning is not related to college student mental health. As mentioned previously, the RCP also did not impact engaged learning. However, the RCP did positively impact several dimensions of mental health. Notably the amount of drugs and alcohol used by students and the reasons students choose to drink alcohol. These, somewhat conflicting results should be examined in future research.

Engaged learning has been shown to provide innumerable benefits for students, such as improved academic performance, cognitive growth, and personal development (Astin, 1993; Pascarella & Terenzini, 2005). As highlighted earlier in this chapter, a small body of research also found that higher levels of student engagement result in lower rates of substance use and abuse. Because mental health concerns of college students are such an important issue, and colleges and universities need to find new ways to impact student well-being, more research needs to be conducted on this topic.

**Conclusions**

This researcher has identified two major conclusions as a result of the analysis of the data and key findings. These conclusions are (a) art students at Art College had a number of significant mental health concerns, but fewer than were anticipated by this researcher; (b) at the posttest, students in the residential college program experienced a more positive relationship with substance use as compared to students in the control group.
This study was conducted on a single site, so the data cannot be statistically compared to students who do not attend Art College. However, the review of the literature indicated that college students experience a number of significant mental health concerns. In addition, the literature also reports a strong prevalence rate of mental health concerns for artists. The data from this study indicate that students in both the control and treatment group had a number of significant mental health concerns. However, the results of the analysis on the posttest data indicate that these concerns are not as significant as was anticipated by this researcher.

Analysis of the posttest data indicated that the Stress scale measured a mean score of (M = 2.23, SD = 0.56) for the control group and (M = 2.21, SD = 0.58) for the treatment group. This question was measured on a five-point Likert scale (0-4) with 0 = none; 2 = some; and 4 = very much. Students were asked to indicate how often they experienced stress from items such as “dating,” “school work,” and “financial pressures.” These results mean that students in both groups experienced “some” level of stress. This result was not surprising, as stress appears to be a major part of the college student experience. However, students did not indicate they experienced “quite a bit” or “very much” stress.” The stress level for first-year students at Art College appears to be moderate. Given the transition issues of the first-year in college, this researcher expected students to have higher levels of stress. However, it appears as if the students, as a whole, experienced a moderate level of stress. Even a moderate level of stress can have a significant impact on a student’s experience. As indicated earlier, stress and depression had a significant correlation for three of the four groups. Given the relationship between
stress and depression, faculty and staff at Art College should continue to find ways to help students minimize and manage their stress levels.

The results of the depression scores were similar to those of the stress scale. Students indicated experiencing some depression, but not a significant amount for the posttest scores. The mean amount of the CESD Depression scale was below two and the ACHA Depression and All Depression scales were approximately two for both groups. Students were asked to report how often they “felt things were hopeless,” “felt very sad,” and “felt depressed.” As a group, students indicated they felt depressed “sometimes” but not “often” or “very often.” Similar to the results of the Stress scale, this means that students did not appear to have experienced significant levels of depression. However, any level of depression can impact a student’s ability to engage in the curricular and co-curricular experiences in college therefore Art College should continue to find ways to reduce depression among its students.

Results of the analysis of the posttest data on the alcohol scales were also quite promising. Students were asked to indicate, on a scale of 0-5, how often they experienced negative consequences from their drinking during than previous year. These consequences were items such as “had a hangover,” “missed school,” and “been hurt or injured”. In this scale, 0 = never, 1 = once, 3 = three to five times, and 5 = 10 or more times. The mean scores for both the control (M = 0.60, SD = 0.54) and the treatment group (M = 0.38, SD = 0.40) were both under one. This indicated that students rarely experienced the negative effects listed in the survey as a result of their drinking. This is extremely positive news, as first-year students at Art College appear to have managed
their alcohol consumption in ways that limited many of the negative aspects of that consumption.

In addition, students in both groups were more motivated to drink because of positive reinforcement, such as for social and enhancement reasons, as compared to negative reinforcement, such as coping and conforming motivations. Students were asked to indicate how often, when they drank, they did so for specific reasons such as “to forget your worries,” and “because it helps you when you are depressed or nervous.” While students in the control group were more likely to drink to cope (M = 1.40, SD = 1.14) as compared to students in the treatment group (M = 0.70, SD = 0.68) both of these groups indicated they did so far less than half of the time. And even fewer students indicated they drank to conform to their peers’ expectations. These results, combined with the data that indicate students experience fewer effects from their drinking, mean that students at Art College appear to be managing their alcohol consumption in a manner that has limited negative consequences. While this is positive news, more research should be conducted, utilizing a more robust measurement of mental health and well-being, such as the Healthy Minds Study, where Art College results can be compared to other art schools and other institutions of higher education.

The second major conclusion from this study is that participation in the residential college program appears to be associated with some positive aspects of student mental health and well-being. As previously noted, the data collection methods limited some of the advanced statistical analysis that could be conducted, so this conclusions needs more research. However, a number of data points indicated that students in the RCP
experienced a more positive relationship with substance use at the posttest. As previously noted, students in the RCP were less likely to drink to cope with their problems. This researcher hypothesizes that the community development aspects of the RCP assisted students in developing alternate methods of coping with problems. Students in the treatment group were less likely to drink as a means of coping. In this study, Coping Motivation also had a significant correlation to depression; therefore, decreasing student desire to drink as a means of coping may also positively impact their levels of depression. Students have reported in previous research that depression had a significant impact on their academic performance. Therefore, reducing college student depression may help improve academic performance. Given the positive correlation between Coping Motivation and Depression, it would benefit colleges to help students develop more positive coping methods.

The multiple regression analysis also indicated that students in the treatment group were more likely to drink for positive reasons, such as Enhancement and Social Motives. As discussed earlier, the results on the Drinking Motives scale may be due to the strong community built in the RCP. This community may have afforded students with other opportunities and outlets to deal with negative issues, and perhaps, students viewed alcohol as a positive way to engage in the community and to enhance their experience.

As previously noted, during the pretest, students in the treatment group were significantly more likely to engage in binge drinking and drug use. At the end of the program, no significant differences existed between the groups. This finding is consistent
with previous research indicating that residential learning communities positively impacted substance use and abuse. Therefore, colleges may want to consider developing RLCs that integrate wellness information into the curricular and co-curricular experiences, to help reduce student use of drugs and alcohol. The multiple regression analysis also indicated that students who participated in the RCP experienced fewer negative impacts from their drinking, as compared to students in the control group. Participation in the RCP may have had a mitigating impact on substance use, which was a major goal of Art College when this program was developed. While this is positive news, more research is needed to confirm this assertion and to determine what aspects of the RCP may have contributed to these findings.

**Research Limitations**

This research study utilized an existing, archived data set. Limitations related to the survey design and data collection methods are described in this section. One of the most significant limitations of this study was the lack of personal identifiers assigned to students during data collection. Student affairs professionals at Art College administered the survey. Because Art College is a small school where the staff often know and work closely with most of the students in the freshman class, confidentiality was considered a major concern in the survey administration process. In order to allow students to answer the questions anonymously, no personal identifiers were utilized in the survey collection. Given the sensitive nature of survey questions, this was implemented to help students feel comfortable and that their privacy was being protected. This was designed with the hope that students would answer questions more honestly. However, lack of personal
identifiers required that the data be aggregated to the site level (e.g., Research Studio control group and RCP treatment group) during the analyses. Aggregation to the site level enabled this researcher to utilize all data and to employ a number of statistical applications and techniques. However, it also limited some of the advanced statistical techniques that could be utilized. Because data collected were aggregated to the site level, it was not possible to conduct analysis that utilized the pretest and posttest data simultaneously in order to better determine if individual students and each group experienced significant changes in their engaged learning and/or mental health as a result of the RCP intervention. In addition, it prevented the researcher from identifying additional data points, such as GPA or retention, to determine if the intervention impacted other areas of a student’s experience.

The second limitation was also related to the lack of personal identifiers being assigned to each survey participant. Self-selection was a significant concern for this researcher, as one hypothesis was that students who were already more engaged with learning would seek out the residential college program. A quasi-experimental research design was conducted, in part, so that an analysis of potential differences between the control and treatment groups could be identified. The initial plan was to analyze pretest and posttest data to determine if self-selection was a concern. However, since the data did not contain a personal, confidential identifier, self-selection pretest and posttest analyses could not be conducted. Therefore self-selection bias remained a limitation to this research project.
Sample size, the third limitation of this study, was determined by the type and size of the intervention. The residential college program (RCP) included six sections of the required Research Studio class. Seventy-two students enrolled in the RCP in the fall of 2008. In order to have a comparable sample, six non-RCP sections were chosen for the control group. This means that both the treatment and control groups had less than 100 students. Furthermore, because some questions were skipped by students and some were not answered because they had not engaged in alcohol or drug use in the previous year, the range of individual responses to individual questions for the pretest was 37-69 for the control group and 42-69 for the treatment group. Because the posttest had a lower response rate, the range of individual responses for the posttest was 21-51 for the control groups and 21-36 for the treatment group. This limited the power of the data and the applicability of these results to other groups.

The fourth limitation identified in this study related to data collection methods. The pretest survey was administered by a student affairs staff member at Art College via a paper version in the required Research Studio class. This yielded excellent response rates, with 79% of the control group and 96% of the treatment group responding. Face-to-face surveys have the highest level of response rates (Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2004). Because the control group was not in the same class for the spring semester, an in-class administration was not possible. The posttest survey was administered via email and on-line Survey Monkey. The response rates were not as strong, with 57% of the control group and 50% of the treatment group
responding. Given the small sample size of the study, the lower response rate further limited the analysis of the data and the applicability of the results.

Generalizability is the fifth limitation in this research study. This study focused on art students attending a specialized institution of higher education in an urban environment. It is rare for a single sample to be generalizable in research. Given the small sample size, and the specific type of student and institution, these results do not have strong population or ecologic generalizability (Fraenkel & Wallen, 2006). This means the results are not generalizable to art student at other colleges and universities. However, they are generalizable to the specific population at Art College.

The final limitation identified in this study was the overall survey design, which included utilizing questions from national surveys as well as questions designed by the consortium. While most of the scales showed strong internal reliability, the Cronbach alpha of the Stress scale, .56, was below the acceptable level. The mental health portion of this survey focused on depression, stress, and drug and alcohol use. A consideration for the future would be to utilize the Health Minds Study, which includes more dimensions of mental health and the scales have been shown to have high internal consistency and reliability (Eisenberg and Nelson, 2009). In addition, the Engaged Learning scale, which included 30 items, had more items than the other scales. It also did not directly relate to educational practices examined on other surveys (e.g., the NSSE). This survey would have been stronger if it utilized previously documented educational practices related to Engaged Learning such as the NSSE measures of Deep Learning.
**Recommendations for Further Research**

This section provides a number of recommendations for further research, including: (a) engaged learning and gender, art students and mental health and well-being; (b) exploring the effect residential learning communities have on mental health and well-being; (c) studying the linkages between stress and depression; (d) the relationship between gender and drinking motives and alcohol impact; (e) the linkages between mental health concerns and persistence and graduation rates; and (f) conducting more research on how art student mental health concerns are similar and/or different from those of traditional college students.

**Engaged Learning, Gender, Art Students, and College Student Mental Health**

Engaged learning is a widely researched topic. The National Survey of Student Engagement (NSSE) has provided a framework for researching and discussing engaged learning. A fine arts curriculum often involves a number of active learning pedagogies. Research should be conducted to determine if art students are more or less engaged with their learning than students in other majors. One of the surprising findings of this current research study was that men were more engaged than women. This contradicts previous research on student engagement. This topic should be further explored, especially in the context of art schools, to determine if male students in art colleges are more engaged than female students.

In addition, research on the impact engaged learning has on college student mental health is very limited. In this study, engaged learning was defined as “a process in which students are active participants in learning rather than passive recipients of
information” (American Association of Colleges and Universities, 2011). However, as previously mentioned, the engaged learning portion of this survey was developed utilizing some questions from the NSSE and some that were developed by the BTtoP consortium. The NSSE is a tested and proven measure of engagement, and further research should focus on utilizing the NSSE data as the only measure of engaged learning. Ideally, a large study should be conducted that would utilize NSSE data along with mental health measures to determine what, if any, linkages exist between engaged learning and mental health and well-being. Given the mental health concerns that are present on college campuses it is important to further explore the impact engaged learning can have on mental health and the impact mental health concerns have on student engagement. If engaged learning is shown to positively impact mental health, colleges and universities will have a number of additional tools to help students improve their mental health and well-being.

Residential Learning Communities and College Student Mental Health

Most existing research about residential learning communities (RLCs) and college student mental health have focused on substance use and abuse. The results have shown that students who participate in an RLC often have lower rates of alcohol use. However, no research could be located that studied the impact of an RLC on drug use and other dimensions of mental health, such as stress, anxiety, and depression. This research should be conducted as an experimental design, so that students who participate in an RLC can be compared to students who live on campus but do not participate in an RLC and to students who live off-campus. In this current study, the author hypothesized that
the community aspect of the residential college program assisted in mitigating students’ alcohol use, their motivation for drinking, and the negative consequences realized from drinking. This hypothesis should be explored in further research. Given the mental health crisis on campus, colleges and universities must continue to explore initiatives, beyond traditional counseling center activities, to assist students. A residential learning community would be a perfect vehicle for this type of intervention.

**Linkages Between Stress and Depression**

One of the most interesting findings from this current study was the association between stress and depression. Stress and depression correlated for both of the pretest groups and for the posttest control group. Further research should be conducted to attempt to replicate these results and to determine if students who have higher levels of stress become depressed or if the existence of depression causes students more stress. In a recent national study, 12% of students indicated that depression and 28% reported that stress impacted their academic performance during the previous 12 months (American College Health Association, 2011). Colleges and universities need to determine how these two issues are linked and to find ways to help students address these concerns.

**The Relationship Between Gender and Alcohol Use**

Further research should also be conducted on the impact gender has on student motivations to drink and the negative consequences they receive from their drinking. Previous research has found that men tend to drink for social reasons and women for emotional reasons (Murphy, McDevitt-Murphy & Barnett, 2005; Orford & Keddie, 1985). Utilizing the Drinking Motives questionnaire, a larger study should be conducted to
determine if these findings are generalizable to college students. In addition, recent research has indicated that women experience more significant consequences than men from drinking alcohol. In the current study, men had higher scores on the Alcohol Impact scale. These results were surprising, and further study should be conducted to determine if these results could be replicated in a larger sample. These results may occur, in part, because a different type of student attended the Art College and/or the art school experience impacted alcohol use. Research should be conducted to determine if either of these hypotheses is accurate.

**Mental Health Concerns, Persistence and Graduation Rates**

A few studies have shown that a direct correlation exists between mental health problems and successful completion of college. Because personal identifiers were not utilized in this study, it was impossible to determine if student mental health concerns impacted retention during the first year at Art College. Colleges and universities now have a number of tools to study mental health concerns, including the *Healthy Minds Study* (Eisenberg & Nelson, 2009), the *National College Health Assessment* (American College Health Association, 2011) and the *CIRP Freshman Survey* (Higher Education Research Institute, 2010). Institutions should utilize these existing studies and track student retention and graduation rates to determine if correlations between mental health concerns and college student persistence occurs. This topic is not widely discussed in the retention literature, and more research should be conducted to determine the impact mental health concerns have on student retention and graduation from college.
Mental Health Concerns of Art Students

Perhaps the most significant area needing further research is exploring the mental health concerns of student artists as compared to college students from different majors. Previous research has shown that individuals from creative professions have higher prevalence rates of mental illness (Jamison, 1993; Ludwig, 1995). Much of the existing research has been conducted reviewing famous artists and comparing them to the general population. Art students compose a population that would be fairly easy to identify and to study. Research should be conducted to determine if differences exist between all fine arts majors (e.g., music, visual arts, and drama) and if any differences exist between students studying at traditional universities versus those attending conservatories and art schools. This type of research could be controversial for a number of reasons. There may be a hesitancy to perpetuate the perception that artists are “crazy.” In addition, colleges and universities may feel that significant reputational issues exist, in that parents may be more reluctant to allow their sons and daughters to study art if there appears to be more mental health concerns among the population. However, the benefits of research could significantly outweigh these concerns. If in fact art students do experience mental health issues at a rate greater than other college students, institutions of higher education should provide additional support and programs to support these students. In addition, if these concerns do exist, acknowledging them as a population may decrease stigma among individuals and communities, which may assist student artists in availing themselves of the resources and support necessary to maintain their health.
Recommendations for Professional Practice

In addition to the previously described recommendations for research, the analysis of the data from this study has caused this author to consider means by which colleges and universities can positively impact mental health. These recommendations include: (a) integrating information about wellness issues into the curriculum; (b) determining additional ways in which to involve faculty in developing solutions to problems related to mental health and well-being; (c) providing more information for students about methods to relieve stress and its correlation to depression; (d) developing programs that focus on peer assistance and community building; (e) working with students to identify their reasons for drinking and to examine the impact their drinking has on their experience; and (f) determining additional vehicles to engage students in their curricular and co-curricular experiences.

Integrating Wellness Education into the Curriculum

One of the primary ways institutions of higher education communicate their values is through the curriculum. Colleges and universities that are serious about helping students improve their wellness should use the curriculum as a vehicle for disseminating information and sparking dialogue about this issue. The Bringing Theory to Practice project (BTtoP) has provided grants to a number of schools to utilize the curriculum to help students manage their emotional and physical health. Many of these programs have shown promising results, and colleges and universities should continue to find ways to integrate these issues into the academic experience. Given the significant impact mental health has on the academic success of students, it should be addressed in all areas of the
student experience. College students today do not all fit within the traditional 18-22 year old population of decades ago. Many students have jobs, families and outside responsibilities, and it is impossible for them to come to programs outside of their classes. The only way to reach every student at a college is to embed the programming within the curriculum. Faculty are not therapists or wellness educators and cannot be expected to be experts in the area of mental health. However, through faculty education on these issues and utilizing outside resources to partner with faculty, it is possible to develop a systematic approach to educating students on how to maintain their wellness.

Involving Faculty in the Conversation about Mental Health Concerns

Faculty are key stakeholders on campus and are often the ones who have the most influence over students. Faculty see students frequently and are often aware of how mental health concerns are impacting an individual student’s academic and personal development. Colleges and universities should continue to involve faculty in institutional dialogues about wellness issues. They should develop forums that gather students, faculty and staff to discuss the mental health concerns of this population. Faculty should be viewed as both a partner and as a responsible party in developing ways to address these concerns.

Stress Relief and Depression

In a recent survey, more than half of college students rated their stress level as above average, and almost two-thirds reported they wanted their college or university to provide them with information on how to relieve their stress (American College Health Association, 2011). College student stress is out of control. Institutions of higher
education must do a better job of educating students about the impact stress has on their overall experience. They must also provide students with methods to help alleviate and manage their individual stress. Staff and faculty should identify the potential causes of stress for students on their campus (e.g., specific courses, majors or program) to determine if they can be adjusted to decrease student stress. If not, the institution should determine what additional support should be provided to help students manage their stress. In this study, stress and depression were highly correlated. Faculty and staff should be aware that students who are experiencing high levels of stress may also be depressed. They should be provided with education on these issues, through programs like Mental Health First Aid, in order to develop the necessary tools to work with these students and to be able to appropriately refer students to resources on campus. It is clear students are coming to campus having previously experienced more stress and feeling more overwhelmed than ever before (Higher Education Research Institute, 2010). Colleges and universities must find ways to help students manage their stress and to limit, when appropriate, the amount of stress caused by the college experience.

**Peer Support and Community Building**

As compared to students in the control group, students participating in the residential college program (RCP) experienced a decline in their alcohol consumption and drug use, were less motivated to drink because of Social Motivation, Enhancement Motivation and Coping Motivation, and experienced fewer negative consequences from their drinking. This researcher hypothesizes that students in the RCP built a strong community and were more able to engage in social activities that did not involve alcohol
and were less motivated to drink because they had developed other coping methods. Colleges and universities should continue to develop community experiences that foster peer support so that students connect with each other to develop support systems and social outlets.

Student Motivation for Drinking and the Impact of Alcohol Use

In this study, students who were more depressed were more motivated to drink for coping reasons. Men were more likely to drink to enhance their experience. Colleges and universities should help students identify their personal motivation for drinking and to understand the implications of these motivations. At many institutions of higher education, college students participate in required alcohol education prior to coming to campus. Students should be screened to determine their overall motivations for alcohol consumption and faculty and staff should help educate students about the different types of motives. In addition, colleges and universities should conduct research to determine who the vulnerable populations are on campus (e.g., do men experience greater negative effects from drinking?) and then develop effective programs to support these subpopulations.

Student Engagement in Curricular and Co-Curricular Programs

While this study did not show a direct correlation between engaged learning and mental health and well-being, the review of the literature clearly identifies significant benefits of engagement in curricular and co-curricular experiences. Faculty and staff should continue to examine why some students on their campus are less engaged than others and to develop programs to better integrate students into the college experience.
Participation in the residential college program at Art College helped mitigate alcohol use and abuse among those students in the RCP. Colleges and universities should continue to develop programs to help students engage with the community and actively participate in programs on campus. This will help students develop other support networks and social outlets, hopefully mitigating some of the need to participate in activities that lead to substance use and abuse, in order to develop a supportive community to cope with their wellness issues.

**Conclusion**

The mental health concerns of college students have significant implications for institutions of higher education as well as individual students. Mental health issues can impact student academic progress, persistence and graduation rates. In addition, a few high-profile cases have shown that, at times, students with mental illness can have a negative impact on the community and may even pose a safety risk to the campus. As shown by the literature review, art students appear to be more susceptible to mental health issues as compared to students in other majors. As previously discussed, college counseling centers continue to see the demand for their services outpace their available resources, and recent research indicates that many students who have a mental illness often do not seek treatment (Eisenberg & Nelson, 2009; Gallagher, 2009). However, most colleges and universities are not implementing initiatives outside of counseling services that are designed to positively impact student mental health. Institutions of higher education must realize that college student wellness is the responsibility of
everyone on campus, and interventions must be developed to improve the mental health and well-being of students.

This study was conducted to determine if one such intervention, a residential college program (RCP), had an impact on the mental health of art students. The results of this study indicate that the RCP had a positive impact on substance use and abuse and the use of alcohol as a coping motivation among art students. While the gains were somewhat limited in scope, they were significant. Further study is needed to determine if engaged learning can be utilized as a vehicle to improve the mental health and well-being of students. Colleges and universities must continue to develop and implement curricular and co-curricular initiatives designed to improve learning and mental health and well-being. College student wellness is a campus-wide issue as it affects all aspects of the student experience and has implications for individuals, colleges and universities, and society as a whole.
APPENDIX A

SURVEY INSTRUMENT
2008 First-Year Program Assessment Survey

You are being invited to participate in a research study about the experience of First Year students at Art College. This study is being conducted by the Residential College Program Committee, which is funded in part by a grant from the Bringing Theory to Practice organization. Caring Administrator, Dean of Student Life at the Art College is the Assessment Coordinator for this project.

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you provide will assist Art College better understand the needs and experiences of first year students, related to their overall health and wellness, community involvement, and engagement within the school. The questionnaire will take approximately 20-25 minutes to complete. We will be conducting this survey 3 times this year: in mid September, in December and in April. The information learned in this study may not specifically benefit you, but should provide general benefits to first year students at Art College by providing us information to assist with the further development of curricular and co-curricular initiatives.

This survey is anonymous. Do not write your name on the survey. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. Individuals from the Residential College Program, Bringing Theory to Practice, and the First Year Program may review these records. Should the data be published or shared with other individuals/groups, no individual information will be disclosed.

Your participation in this study is voluntary. By checking the box on the next page and by completing the survey you are voluntarily agreeing to participate. You are free to decline to answer any particular question you do not wish to answer for any reason.

If you have any questions about the study, please contact Jane Doe, Dean of Student Life, 123.555.5555, care@artcollege.edu.
Please check this box to indicate your agreement to participate in this survey. If you mark yes, your answers will be used in this survey.

☐ I agree to participate in this survey. I understand my answers are anonymous. I understand the data will be compiled as a group, and there is no personally identifiable information that can be linked to me.

Part I: The following questions concern your participation in class and your level of interest in the things you are learning.

1. Please indicate how often, during your last school year, you:

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<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
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<tbody>
<tr>
<td>a. Gave an oral presentation.</td>
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<td>b. Came to class prepared.</td>
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<td>c. Asked a question in class.</td>
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<td>d. Asked an instructor for clarification on an assignment or material.</td>
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<td>e. Came to class with questions about the material.</td>
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<td>f. Felt bored in class.</td>
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<td>g. Felt the time you've spent in class was worthwhile.</td>
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<td>h. Felt the time you've spent on coursework (assignments, papers) was worthwhile.</td>
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<td>i. Thought about getting good grades.</td>
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<td>j. Looked forward to going to class.</td>
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<td>k. Tried to see how ideas from the same class fit together.</td>
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<td>l. Tried to see how ideas from different classes fit together.</td>
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<td>m. Worked with another student informally outside of class (studied together, worked on assignments together, proof-read each other's work).</td>
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<td>n. Cared that you were able to do your best work on a paper or test.</td>
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<td>o. Made adjustments outside of class to improve or increase the time you could devote to your studies.</td>
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</table>
2. Considering your last school year, please indicate your level of agreement with the following statements:

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<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Opinion</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>I have related class material to my life outside of the classroom.</td>
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<td>b.</td>
<td>I have related class material to my actions or decisions outside of the classroom.</td>
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<td>c.</td>
<td>Things I have learned in class have changed my view on a particular topic or issue.</td>
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<td>d.</td>
<td>Things I have learned in class have altered (positively or negatively) a personal belief of mine.</td>
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<td>e.</td>
<td>Class material has changed my perspective on what I want to study.</td>
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<td>f.</td>
<td>I feel I have become more aware of certain issues because of the things I have learned or discussed in class.</td>
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<td>g.</td>
<td>I feel more aware of my place/role in society as a result of my classroom experiences.</td>
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</table>

3. Considering your last school year, please indicate your level of agreement with the following statements:

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<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Opinion</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>I have sought out more information on a particular classroom topic outside of class (read something online, in a magazine, or newspaper).</td>
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<tr>
<td>b.</td>
<td>I have had a discussion(s) about something I’ve learned in class with someone close to me (friend, boyfriend/girlfriend, co-worker, family member).</td>
<td></td>
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<tr>
<td>c.</td>
<td>I have pursued an internship or employment related to an issue(s) I learned about in class.</td>
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<tr>
<td>d.</td>
<td>I have engaged in conversations with other students who have different ideas or perspectives other than my own.</td>
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<tr>
<td>e.</td>
<td>I have engaged in conversations with teachers who have different ideas or perspectives other than my own.</td>
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<tr>
<td>f.</td>
<td>Classroom experiences have influenced the organizations I am interested in working with or contributing to.</td>
<td></td>
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<tr>
<td>g.</td>
<td>I have engaged my instructor in a conversation outside of class to learn more about a particular topic.</td>
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</tr>
</tbody>
</table>
**Part II:** The following questions pertain to your actions outside of class and how you are feeling.

4. Please indicate how much each of the following, during your last school year, were sources of stress in your life:

<table>
<thead>
<tr>
<th></th>
<th>None</th>
<th>Very Little</th>
<th>Some</th>
<th>Quite a Bit</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. School work</td>
<td></td>
<td></td>
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<tr>
<td>b. Extracurricular activities</td>
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<tr>
<td>c. Social life and friends</td>
<td></td>
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<tr>
<td>d. Dating</td>
<td></td>
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<td></td>
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<tr>
<td>e. Sex</td>
<td></td>
<td></td>
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<tr>
<td>f. Financial pressures</td>
<td></td>
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<tr>
<td>g. Family issues</td>
<td></td>
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<tr>
<td>h. Concerns about college</td>
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</tbody>
</table>

5. Please list below other sources of stress in your life that you experienced during the last school year.

____________________________________________________________________________________________
____________________________________________________________________________________________
____________________________________________________________________________________________

6. Please indicate how often, during your last school year, you:

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Felt things were hopeless</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>b. Felt overwhelmed by all you had to do</td>
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<tr>
<td>c. Felt exhausted (not from physical activity)</td>
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<tr>
<td>d. Felt very sad</td>
<td></td>
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<tr>
<td>e. Felt so depressed that it was difficult to function</td>
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</tbody>
</table>
7. Please indicate how often, during the last school year, you have felt or behaved in the following ways:

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>b.</td>
<td></td>
<td></td>
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<tr>
<td>c.</td>
<td></td>
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<tr>
<td>d.</td>
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<tr>
<td>e.</td>
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<tr>
<td>f.</td>
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<tr>
<td>g.</td>
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<tr>
<td>h.</td>
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<tr>
<td>i.</td>
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<td>j.</td>
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<td>k.</td>
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<td>l.</td>
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<td>m.</td>
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<td>n.</td>
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<tr>
<td>o.</td>
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<tr>
<td>p.</td>
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<td>q.</td>
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<td>r.</td>
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<td>s.</td>
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<td>t.</td>
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</tbody>
</table>

Part III: We would like to learn more about your views regarding yourself, your campus and community life.

8. Thinking about your involvement at your high school, how well do the following statements characterize you?

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>Very Little</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
b. I often discussed school issues with my friends.

c. I was active in issues affecting my school.

d. I believed I could have an impact at my school.

9. What would you say best described your motivation to be involved at your high school?

- Nothing, I was not motivated to participate at my high school
- It is my duty/responsibility
- I felt I could make a difference
- My school helped me, so I wanted to give back
- To enhance my leadership skills
- I was encouraged to get involved by my family/friends

10. Thinking about your involvement in the local community (the community where you live), how well do the following statements characterize you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>Very little</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I follow the local news (via TV, newspaper, Internet, other) to keep informed on local issues.</td>
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</tr>
<tr>
<td>b. I often discuss local community issues with my friends.</td>
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<tr>
<td>c. I am active in the local community.</td>
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<tr>
<td>d. I believe I can have an impact on solving problems in the local community.</td>
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</tr>
</tbody>
</table>

11. What would you say best described your motivation to be involved in your local community?

- Nothing, I was not motivated to participate in the local community
- It is my duty/responsibility
- I feel I can make a difference
- My community helps me, so I want to give back
- To enhance my leadership skills
- I was encouraged to get involved by my family/friends
12. Thinking about your involvement at the national level (in the United States), how well do the following statements characterize you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>Very Little</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I read national newspapers regularly.</td>
<td></td>
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<tr>
<td>b. I often discuss national issues with friends.</td>
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<tr>
<td>c. I am active in events nationally</td>
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<tr>
<td>d. I believe that I can have an impact on solving problems at the national level</td>
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</tbody>
</table>

13. What would you say best described your motivation to be involved at a national level?

- [ ] Nothing, I was not motivated to participate at the national level
- [ ] It is my duty/responsibility
- [ ] I feel I can make a difference
- [ ] My nation helps me, so I want to give back
- [ ] To enhance my leadership skills
- [ ] I was encouraged to get involved by my family/friends

14. During the past school year, indicate how often you engaged in the following:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Never</th>
<th>Sometimes</th>
<th>Occasionally</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Attended religious services.</td>
<td></td>
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<tr>
<td>b. Participated in organized demonstrations.</td>
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<tr>
<td>c. Performed volunteer work.</td>
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<tr>
<td>d. Voted in a student election.</td>
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<tr>
<td>e. Performed community-service as a part of a class or for a graduation requirement</td>
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<tr>
<td>f. Discussed religion.</td>
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<tr>
<td>g. Discussed politics with friends.</td>
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<tr>
<td>h. Discussed politics with family.</td>
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<tr>
<td>i. Discussed politics in class.</td>
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<tr>
<td>j. Performed community-service as part of an organization or group.</td>
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</tr>
</tbody>
</table>
### 15. Please indicate your level of agreement with the following items:

<table>
<thead>
<tr>
<th>Item</th>
<th>Strongly disagree</th>
<th>Disagree somewhat</th>
<th>No Opinion</th>
<th>Agree somewhat</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Adults should give time for the good of their community.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>b. Social problems are not my concern.</td>
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<td></td>
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<tr>
<td>c. People who receive social services have only themselves to blame for needing such services.</td>
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<tr>
<td>d. Social problems are more difficult to solve than I used to think.</td>
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<tr>
<td>e. If I could change one thing about society, it would be to achieve a greater sense of social justice.</td>
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<tr>
<td>f. The most important community service is to help individuals.</td>
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<tr>
<td>g. For the most part, individuals control whether they are wealthy or poor.</td>
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<tr>
<td>h. It is important to me to volunteer my time to help people in need.</td>
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<tr>
<td>i. I feel uncomfortable working with people who are different than me in things such as race, wealth and life experience.</td>
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</tbody>
</table>

### 16. Please rate your ability compared to your peers on the following items:

<table>
<thead>
<tr>
<th>Ability</th>
<th>Much worse than most</th>
<th>Not as good as most</th>
<th>About the same</th>
<th>Better than most</th>
<th>Much better than most</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Respecting the views of others</td>
<td></td>
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</tr>
<tr>
<td>b. Ability to listen</td>
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<tr>
<td>c. Ability to compromise</td>
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<tr>
<td>d. Being effective in accomplishing goals</td>
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<tr>
<td>e. Thinking about the future</td>
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<tr>
<td>f. Ability to work with others</td>
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<tr>
<td>g. Thinking about others before myself</td>
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</tbody>
</table>
Part IV

17. Have you ever consumed alcohol, taken illegal drugs, or used prescription medication (your own or others) for a purpose not prescribed?
   - □ Yes: IF YES, PLEASE CONTINUE TO COMPLETE THE REST OF THE SURVEY
   - □ No: IF NO, SKIP TO PAGE 11

In the last school year,

18. Approximately how many drinks did you consume in an average week? Number of drinks per week:
    ________

19. Approximately how many drinks did you consume in an average month? Number of drinks per month:
    ________

20. Approximately how many times per week did you drink? (If you drink less often than once per week, put zero). Number of times per week:
    ________

21. Approximately how many times did you drink per month? (If you drink less often than once per month, put zero). Number of times per month: ________

22. When you drank, how many drinks would you estimate you consumed in an average sitting? (please give a specific number) ________

23. Generally speaking, when you drank, would you say you were most likely to:
   - □ Only have one or two drinks
   - □ Drink until you feel drunk
   - □ Drink until you have a “buzz”
   - □ None of the above

24. The following is a list of reasons people sometimes give for drinking alcohol. Thinking of all the times you drank in the last school year, how often would you say that you drank for each of the following reasons?
<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>Some of the time</th>
<th>Half of the time</th>
<th>Most of the time</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>To forget your worries</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>b.</td>
<td>Because your friends pressure you to drink</td>
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<tr>
<td>c.</td>
<td>Because it helps you enjoy a party</td>
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<tr>
<td>d.</td>
<td>Because it helps you when you feel depressed or nervous</td>
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<tr>
<td>e.</td>
<td>To be sociable</td>
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<tr>
<td>f.</td>
<td>To cheer up when you are in a bad mood</td>
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<tr>
<td>g.</td>
<td>Because you like the feeling</td>
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<tr>
<td>h.</td>
<td>So that others won’t kid you about not drinking</td>
<td></td>
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<tr>
<td>i.</td>
<td>Because it’s exciting</td>
<td></td>
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<tr>
<td>j.</td>
<td>To get high</td>
<td></td>
<td></td>
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<tr>
<td>k.</td>
<td>Because it makes social gatherings more fun</td>
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<tr>
<td>l.</td>
<td>To fit in with a group you like</td>
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<tr>
<td>m.</td>
<td>Because it gives you a pleasant feeling</td>
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<tr>
<td>n.</td>
<td>Because it improves parties and celebrations</td>
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<tr>
<td>o.</td>
<td>Because you feel more confident and sure about yourself</td>
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<tr>
<td>p.</td>
<td>To celebrate a special occasion with friends</td>
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<tr>
<td>q.</td>
<td>To forget about your problems</td>
<td></td>
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<tr>
<td>r.</td>
<td>Because it’s fun</td>
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<tr>
<td>s.</td>
<td>To be liked</td>
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<tr>
<td>t.</td>
<td>So you won’t feel left out</td>
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</tbody>
</table>

25. **During your last school year, how often did you experience the following due to your drinking or drug use?**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>3-5 times</th>
<th>6-9 times</th>
<th>10 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Performed poorly on a test or important project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>Missed school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>Had a hangover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>Got nauseated or vomited</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Had memory loss/ blacked out
2. Did something you regretted later on
3. Got into an argument or fight
4. Damaged property
5. Had sex when I ordinarily would not
6. Been hurt or injured
7. Got into trouble with my parents or other authorities

### 26. How often have you used marijuana?
- Used in the past week
- Used in the past 30 days
- Used at another point during the most recent academic year
- Used prior to the current academic year
- Never used

### 27. How often have you used other drugs
- Used in the past week
- Used in the past 30 days
- Used at another point during the most recent academic year
- Used prior to the current academic year
- Never used

### 28. How often have you used prescription drugs for recreation (purposes other than those for which they were prescribed)
- Used in the past week
- Used in the past 30 days
- Used at another point during the most recent academic year
- Used prior to the current academic year
- Never used
PART V. Demographic Information

1. I am:
   □ Female
   □ Male
   □ Transgender
   □ Other

2. I live:
   □ On-campus
   □ Off-Campus

3. I am a:
   □ Freshman
   □ Transfer Student
   □ Other (please specify) _______________________

4. I plan to work on-campus this year for the following number of hours per week:
   □ 0
   □ 1-5
   □ 6-10
   □ 11-15
   □ 16-20
   □ 21+

5. I plan to work off-campus this year for the following number of hours per week:
   □ 0
   □ 1-5
   □ 6-10
   □ 11-15
   □ 16-20
   □ 21+
APPENDIX B

CONSENT TO UTILIZE SURVEY
November 4, 2011

Loyola Institutional Review Board
6439 N. Sheridan Road, Suite 400
Chicago, IL 60660-5309

Dear Members of the Loyola Institutional Review Board,

Deborah Martin has authorization to utilize the Bringing Theory to Practice Survey Instrument for her dissertation, Measuring the Impact of a Residential Learning Community on the Mental Health and Well-Being of Art Students in Higher Education. This survey was utilized to gather data as part of a Bringing Theory to Practice grant-funded project at Art College during the 2008-09 academic year.

I understand that the data provided to Ms. Martin by Art College is anonymous and does not contain any unique student identifiers. Ms. Martin has informed me that students were selected for this study because they were participants of the Residential College Program, funded in part by the Bringing Theory to Practice grant, or were identified to be in a class within the control group. I further understand that students were provided an informed consent as part of the survey and the data provided to Ms. Martin includes information only from those students who agreed to participate in the study.

Please contact me at finley@aacu.org if you have any questions.

Sincerely,

Ashley Finley, Ph.D.
Senior Director of Assessment and Research
Association of American Colleges & Universities
1818 R Street NW
Washington, DC 20009
202-884-0803
APPENDIX C

CONSENT TO UTILIZE ART COLLEGE SURVEY RESULTS
October 20, 2011

To the Loyola Institutional Review Board:

Deborah Martin has authorization to utilize existing, archived data from research conducted at Art College for her dissertation, Measuring the Impact of a Residential Learning Community on the Mental Health and Well-Being of Art Students in Higher Education. This data was gathered as part of a grant-funded project at Art College during the 2008-09 academic year.

The data provided to Ms. Martin is anonymous and does not contain any unique student identifiers. Students were selected for this study as either participants of the Residential College Program or those identified in the control group. Students were provided an informed as part of the survey, and the data provided to Ms. Martin includes information only from those students who agreed to participate in the study.

I understand that Ms. Martin will mask the name of Art College in her dissertation and she will not seek to publish this data beyond her dissertation.

Please contact me at email@artcollege.edu if you have any questions.

Sincerely,

Vice President and Dean of Student Affairs
Art College
APPENDIX D

SAMPLE PARTICIPANT RECRUITMENT E-MAIL
Dear Art College First Year Student,

You can receive $10 on your College Card for completing this survey PLUS have a chance to win a $50 iTunes gift card. This is a survey about first year students' experiences at Art College and is sponsored by the First Year Program, Student Affairs and the Residential College Program. Please take about 20 minutes and complete this survey and you will get $10 on your College Card to be used in the many locations that take College Card. You do not need to provide your ID number to complete this survey, on if you would like to receive $10 on your College Card.

Please only complete this survey 1 time and do not forward it to others, as we have selected a sampling of first year students. If you have any questions, please do not hesitate to contact me at dean@artcollege.edu.

Thanks for completing the survey - to begin, click on the following link:

http://www.surveymonkey.com/artcollegesurvey
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VITA

Deborah K. Martin received a Bachelor of Music from the University of Central Missouri in 1989. Upon completion of her undergraduate work, she went to Truman State University where she completed a Master of Arts in Music degree. She served as a Hall Director at Truman State for two years. She moved to Chicago and took a position as the Director of New Residences at the School of the Art Institute of Chicago (SAIC). Ms. Martin developed the Residence Life program at SAIC and was responsible for opening each of the school’s new residence halls. She has held a variety of positions at the school, including Assistant Dean of Student Affairs, Associate Dean of Student Affairs, and her current role, Dean of Student Life. At SAIC, she is responsible for academic advising, campus life, residence life, student support, student conduct, parental programs, and crisis management.

Ms. Martin has been involved in leadership positions for the Association for Student Conduct Administration, the Chicago Areas Small College Housing Association, NASPA IV-East, and the Association of Independent Colleges of Art and Design. She has presented programs at national conferences on topics including case management, parental involvement, and working with students in distress for a variety of professional associations, including the Association for Student Conduct Administration, NASPA – Student Affairs Administrators in Higher Education, the National Behavioral Intervention Team Association, the National Academic Advising Association, the National Resource
Center – First Year Experience and Students in Transition, and the Association of Independent Colleges of Art and Design.