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THE CAPACITY OF A SOUTHERN UNIVERSITY TO PROMOTE AND
SUPPORT HEALTH LITERACY AMONG COLLEGE STUDENTS: A CASE STUDY
APPROACH

By

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A Dissertation
Submitted in Partial Fulfillment of the Requirements for
Doctor of Philosophy

Health Education
Graduate School
Southern Illinois University, Carbondale
December 2012

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DISSERTATION APPROVAL

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SUPPORTHEALTH LITERACY AMONG COLLEGE STUDENTS: A CASE STUDY
APPROACH

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Alison Epperson

A Dissertation submitted in Partial
Fulfillment of the Requirements
for the Degree of
Doctor of Philosophy

in the field of Health Education

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June 14, 2012

AN ABSTRACT OF THE DISSERTATION OF

ALISON EPPERSON, for the Doctor of Philosophy degree in HEALTH EDUCATION, presented June 14, 2012, at Southern Illinois University, Carbondale.

TITLE: The Capacity of a Southern University to Promote and Support Health Literacy Among College Students: A Case Study Approach.

MAJOR PROFESSOR: Dr. Joyce V. Fetro, Ph.D. CHES

The primary purpose of this case study was to determine if the university under study had adequate health-related programs, services, and supports in place to develop health-literate young adults. A secondary purpose was to identify strengths and gaps in these university health-related programs, services, and supports, which, if addressed, could increase the likelihood that college graduates would be health-literate.

This research study served to answer three broad research questions: 1) What are the health-related needs and concerns among selected university undergraduates? 2) What is the level of awareness and utilization of health-related programs, services, and supports by university undergraduate students? 3) What are the strengths and gaps among health-related programs, services, and supports?

As more and more young adults come to colleges and universities seeking an education, they bring with them high-risk health behaviors that can impede their academic success. Post-secondary institutions have programs, services, and supports in place specifically designed to ease the transition into college, provide academic assistance services, promote a safe learning and living environment as well as facilities and departments dedicated to raising awareness of and maintaining physical and mental health. The effectiveness with which these health-related programs, services, and supports are meeting their goals and reaching their target audience can be

assessed by collecting student feedback regarding their attitudes, perceptions and usage.

The first part of the study involved personal interviews with preselected representatives of Student Affairs, the President of the university, the Provost, Captain of Public Safety, and the Senior Athletic Director. Interview questions were designed to determine how, if any, of the programs, services, or supports under study supported the six dimensions of health and wellness, or the IOM skill set for health literacy. After all interviews were conducted, transcripts were reviewed and coding was conducted to determine the connection between the selected programs, services, and supports, and the IOM health literacy skill set and the six dimensions of health and wellness. Additionally, transcript review allowed for the identification of strengths and weakness among each of the programs, services, and supports.

The second part of the study engaged students who volunteered to participate in focus groups in an open discussion about what they perceived health to be (as a concept) and to determine what, if any, personal health-related issues or concerns they felt at the present time, how health-related issues or concerns created barriers to their academic success, and their level of awareness about the programs, services, and supports available.

In addition to conducting personal interviews and focus groups, I analyzed documents and material (i.e. web-pages, brochures, student handbook, under graduate bulletin) related to each department under study. This document analysis was also coded for connections to the six dimensions of health and wellness or the IOM's health

literacy skill set. Web-pages were further analyzed for strengths and gaps related to each program, service, or support.

An embedded analysis was conducted and themes were interpreted. Discussion and recommendations were stated at the conclusion of the case study; increasing health-literacy among college students and raising awareness of and attempting to reduce high-risk, health-related behaviors are consistent with goals and characteristics of a graduate from the university under study.

Not surprisingly, when asked, most students only identified the physical aspect of “health” and sometimes, as a mental aspect with regards to stress. Feedback from focus group discussions indicated that students could make a connection between all six dimensions of health and how they might impede academic performance.

Unfortunately, however, they did not seem to possess the skills or the knowledge on to how correct negative health behaviors themselves, or how to seek out various health-related programs, services, and supports that are available. By in large, students seemed very interested in learning more about many of these programs, services, and supports and indicated that they wished they had been made aware of such opportunities at the beginning of their college careers.

Students also communicated lack of knowledge and awareness about the available health-related programs, services, and supports. Focus group discussions indicated that students felt as though the campus under study had not really taken the time to discover which methods of communication were successful; further indicating that current delivery methods were outdated and ineffective.

In summary, students coming to post-secondary institutions bring with them a variety of negative health-risk behaviors which can create a barrier to academic success. Post-secondary institutions are in a unique position to help students overcome these barriers with a variety of programs, services, and supports such as housing, dining, health services, campus security, mental health centers, and disability services. However, this cannot be accomplished unless such programs, services and supports are perceived by students as credible and useful and as a result utilized

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John and James, who I don't think have ever really grasped the requirements of a dissertation, but have always offered their support and enthusiasm as well as any sweet younger brothers could. This time, the path I burned for you was a good one!

To my mom and stepdad; Mom- for pushing me to start this, instilling in me the faith that I could excel at things other than social participation and planning (i.e. my undergrad) and for the countless times of keeping Jack and listening to me cry when I felt overwhelmed and not capable. For the daily prayers from you and 100 other people, words of encouragement, extra money, and always reminding me that I COULD do this. Daddy Bull, your cards, phone calls, and "this is what Stepdads are for" treats have always brightened my day.

To my dearest of all friends; Jamie, Katie and Susan.; The three of you will never truly know how your unconditional support, friendship, and laughs got me through some of the darkest times of my life in the course of seven years. There are just not enough words I can say or write that would truly express my gratitude for your presence in my life. You didn't just sit back and tell me it would be okay; you took me by the hand and showed me that I would be ok. I am blessed to have all three of you and love you to the moon and back!

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Earning my Doctor of Philosophy degree in Health Education is the culmination of seven years of commuting, working full time and parenting full time. Over the course of these seven years, I have survived a job change, a divorce, and a move. Recently, I have adapted a mantra from the song *Stronger* by songwriter Kelly Clarkson who sings “What doesn’t kill you makes you stronger, stand a little taller, doesn’t mean I’m lonely when I’m alone.” I am stronger physically and mentally and look forward to continuing to work in the field of Health Education.

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CHAPTER 1

INTRODUCTION

Young adults who are entering college are collectively referred to as the “Millennial Generation” (Newton, 2000). Furthermore, these students, all products of the *No Child Left Behind* initiative (National Education Association 2001), have been subjected to standards and teaching methods that have fallen under a “teach to the test” approach, meaning all classroom lessons have been well-scripted and rehearsed as to how to answer specific questions on standardized tests. Under this type of teaching format, little opportunity for real-life, practical, skill-based learning and application can take place (e.g.. understanding how to read a food label, understanding how to use a condom correctly and consistently, recognizing the signs and symptoms of Sexually Transmitted Infections (STIs), and understanding the long term effects associated with regular drug use).

Similarly, many teachers within the core curricula of both public and private schools have very little, if any, preparation in health education (American Association for Health Education, 2008). The School Health Policies and Programs Study (SHPPS), sponsored by the Centers for Disease Control and Prevention (CDC), is the most comprehensive and large scale assessment of school health programs in the United States since 1995. This report is conducted every six years to assess characteristics of school health policies and programs at the state, district, school, and classroom level (CDC, 2010) The most recent report (Kann, Brener, & Wechsler, 2007) indicated that, while 74.5% of schools have a policy stating that schools/districts will adhere to national health education standards or guidelines (Joint Committee on National Health

Education Standards, 2007), a mere “13% of elementary school teachers and 37% of middle and high school teachers of required health instruction had an undergraduate major, an undergraduate minor, or a graduate degree in health education” (Kann, Brener, & Wechsler, 2007, p. 389). As a result, teaching aspects about health are sometimes foreign, controversial, and, therefore, often ignored by the non-health certified teacher (Ross, Luepker, Nelson, Saavedra, & Hubbard, 1991).

Even though content areas, including reading, mathematics, and science, are highly concentrated parts of standardized tests, it is apparent that high school students are still struggling. In April of 2009, the National Assessment of Education Progress administered assessments to over 100,000 12th grade students throughout 11 states. Results published on their website confirm there is definitely cause for concern (National Center for Education Statistics, 2010). Specifically, in the reading category, the range of scores for 2009 was between 0-500. The average score for 12th graders was 288, indicating that only 36% of students performed at or above a proficient level (National Center for Education Statistics, 2010). In mathematics, students were assessed in four categories, which included; number properties and operations; measurement and geometry; data analysis, statistics, and probability; as well as algebra (National Center for Education Statistics, 2010). Student scores ranged from 0-300 with the average score of only 153, roughly half of the total possible score. Based upon these scores, only 26% of 12th graders were able to score at or above a proficient level (National Center for Education Statistics). Even more troubling were the reports for science. In this category, the results indicated a decrease from 2005 scores in all three

levels-basic, at or above proficient, and advanced (National Center for Education Statistics, 2010).

What is the connection between these scores and college students? If only a small percentage of teachers are addressing any type of health education, and our national data reflect inadequacies in reading, math and science; then our students come to college with little understanding of health concepts in addition to a lack of skills necessary to be considered 'health literate (i.e. read and interpret information, calculate dosages, or read a nutrition label, or understand basic anatomical and biological functions).

The most notable source of data that reflects adolescent risk behaviors is the CDC's biennial survey of health-risk behaviors among high school students in six health priority areas (Eaton, et al., 2010). The Youth Risk Behavior Survey (YRBS) (Eaton, et al., 2010) is a snapshot of priority health-related risk behaviors, including behaviors that contribute to unintentional injuries and violence; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, unhealthy dietary behaviors; and physical inactivity. While not inclusive, a few specific examples of results from data reported by 12th graders in the YRBS include:

- 17.5% of students surveyed carried a weapon (gun, knife or club) to school on at least 1 day within the previous 30 days;
- 28.3% of students surveyed reported riding in a car with another person who had been drinking on one or more occasions within the previous 30 days;
- 13.8% of students surveyed had seriously considered committing suicide and 6.3% had in fact made an attempt to commit suicide within the previous 30 days;

- 41.8% of students surveyed had consumed at least one drink on one or more occasions within the previous 30 days.

According to the National Center for Education Statistics (2010), between 1999-2009 enrollment in degree granting post-secondary institutions increased 38%, from 14.8 million to 20.4 million. Increasing the numbers of students coming to college means an increase in the diversity of the student population. *Learning Reconsidered: A Campus Wide Focus on the Student Experience* (2004), published by the National Association of Student Personnel Administrators (NASPA), examined the changing facets of today's college students and how best to meet their diverse backgrounds, cultures, and needs. This document explained how colleges and universities must break away from traditional teaching methods (textbooks and lectures) and embrace multiple dimensions [technology] today's students are capable of accessing to enhance both educational and developmental outcomes. The National Survey of Student Engagement (2011) made reference to this need with the following statement, "What students know and are able to do--their ability to analyze complex issues, communicate effectively and contribute to the welfare of society has never been more important" (p.7). Likewise, the Association of American Colleges and Universities (2002) released their own document, *Greater Expectations: The Commitment to Quality as a Nation Goes to College*, to address similar concerns. Their report stressed that colleges and universities must develop what they refer to as "intentional learners." These intentional learners are defined as follows;

students who continually learn throughout their lives and are equipped to become empowered through the development of many intellectual and

practical skills. Students must take responsibility for their own learning and their participation in the civic processes of our democracy; and students must become informed about conditions that affect their lives in the US and as citizens of many wider communities (p.xi).

Those who have achieved a higher level of education not only practice healthier lifestyles, but also report themselves as being in excellent or very good health (The Condition of Education, 2004). Specifically, 78% of individuals with a bachelor's degree or higher reported being in excellent or very good health as compared to only 39% of those with only a high school diploma (The Condition of Education, 2004). Educational attainment leads to increased self-efficacy and empowerment and, as a result, an increased likelihood that a person will take part in activities which, in turn, improve and promote both quality and quantity of life (Egerter, Braveman, Sadegh-Nobari, Grossman-Kahn, & Dekker, 2009).

Student retention, often the highest priority at any post-secondary institution, is constantly monitored. Retaining a student through graduation often is not without obstacles for both students and university personnel. Examples of these problems include poor academic preparedness, low supportive campus climate, low commitment to educational goals and the institution, poor social and academic integration, and lack of financial aid (Grizzell, 2007). Additionally, health behaviors related to alcohol, sleep deprivation, smoking, wake-up times, and other negative health behaviors have been associated with poor academic progress (Grizzell, 2007).

With post-secondary enrollment in the United States increasing, it seems appropriate for administrators to take a closer look at their missions and expectations

with regards to their graduates. Starting in the early 2000s, there has been a focus in postsecondary administration to evaluate health-related programs and services that are offered on college campuses (Raab & Adam, 2005). The Council for the Advancement of Standards in Higher Education (CAS) is a conglomeration of 35 professional organizations that seeks to promote standards for promoting student learning. Within the same timeline, CAS has developed Standards and Guidelines for Academic Advising that include Student Learning and Development Outcome Domains. These domains encompass intellectual growth, effective communication, enhanced self-esteem, realistic self-appraisal, clarified values, career choices, leadership development, healthy behavior, meaningful relationships, independence, collaboration, social responsibility, satisfying and productive lifestyles, appreciating diversity, spiritual awareness, and personal and educational goals (Council for the Advancement of Standards in Higher Education, 2008).

Contextually, the term “health” often is defined as simply physical health (i.e., being free from sickness and disease). However, the most widely regarded definition comes from the original document produced by the World Health Organization in April of 1948 – “A state of complete physical, mental and social well-being, and not merely the absence of disease” (World Health Organization, 2011). To date, several definitions are used to describe aspects of health and wellness. Some examples include: *Health* as the embodiment of six separate dimensions to create total health and wellbeing-social, physical, environmental, spiritual, mental, and emotional (Fahey, Insel, & Roth, 2009, pp. 2-3). The National Association of School Nurses (NASN) defines health as “a continuum and dynamic state that is influenced by the perception of the individual”

(NASN, 2003 p. 2). The Joint Committee on Health Education and Promotion Terminology (2011) utilizes the concept of health promotion as "...a resource for everyday life, not the object for living" (p.10) and *Holistic Health* as "...concern for health requires perception of the individual as an integrated system rather than one or more separate parts including physical, mental, spiritual, and emotional" (p.10) Additionally, their definition of *Wellness* is "An approach to health that focuses on balancing the many aspects, or dimensions, of a person's life through increasing the adoption of health enhancing condition and behaviors rather than attempting to minimize conditions of illness" (p.10)

When considering what it takes for individuals to embrace true health, they must have the capacity and skill set to recognize factors involved and the importance and/or value of each separate dimension. Simple tasks, such as practicing stress management techniques, or getting enough hours of sleep, improves a person's overall health just as much as thinking and improving the environment through recycling efforts (Butler, 2001).

Another important aspect, especially for young adults, is the ability to communicate and maintain positive and effective relationships (emotional and social health). Individuals with strong emotional health possess characteristics that allow them to "work and study, love and be loved, as well as having the capability to maintain self-esteem, self-acceptance, self-control and the ability to share personal feelings." (Butler, 2001 p. 4).

The term *optimal health* can be defined as "the highest level of health possible under the current set of environmental conditions" (Butler, 2001 p. 17). Essentially, this

definition means that a person who can adapt to stressful environmental changes has a higher level of optimal health than a person who cannot (Butler, 2001). It is, therefore, easy to see why an absence of any of these dimensions can have a negative effect on academic achievement.

Health literacy should address all dimensions of health, or as stated by Parker and Ratzan (2010, p. 20) “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” Likewise, a second definition states that individuals need “the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use information in ways which promote and maintain good health” (Nutbeam, 2000 p. 264).

The newly released *Healthy People 2020* (U.S. Department of Health and Human Services) strongly recommends and recognizes the importance of reducing health risk behaviors among young adults, particularly college students. Objective 7-3 as listed on the *Healthy People* web site for the 2020 recommendations (www.healthypeople.gov) reads:

Increase the proportion of college and university students who receive information from their institution on each of the priority health-risk behaviors (unintentional injury; violence; suicide; tobacco use and addiction; alcohol and other drug use; unintended pregnancy, HIV/AIDS and STD infection; unhealthy dietary patterns; and inadequate physical activity) (USDHHS, 2011).

Similarly, *Healthy Campus 2010* (American College Health Association, 2000) provided a set of planning guidelines explicitly focusing on national college health

objectives, based on pre-established “Leading Health Indicators,” or major health issues within the United States. This document also served the purpose of developing plans to improve student health. Specifically, it identified the current health objectives that target college students with regards to the following areas: physical activity, overweight and obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, injury and violence, environmental quality, immunization, and access to health care.

In the Institute of Medicine’s published report *Health literacy; A prescription to end confusion* (2004), several essential health literacy skills are identified that include “reading, writing, mathematics, speaking, listening, using technology, networking, and rhetorical skills associated with requests, advocacy and complaints” (p. 41).

Some specific examples of health literacy include being able to;

- Read, comprehend, and make decisions based on food and product labels;
- Find health information on the Internet or in periodicals and books;
- Make sense of air quality reports and modify behavior as needed;
- Read and apply health information regarding childcare or eldercare;
- Fill out health insurance enrollment or reimbursement forms;
- Work as a partner with care providers to discuss and develop an appropriate regimen to manage a chronic disease;
- Comprehend required informed consent documents before procedures or for involvement in research studies;
- Advocate for safety equipment based on worker right-to know information

- Advocate on behalf of others such as the elderly or mentally ill to obtain needed care and services;
- Understand patient's rights and responsibilities;
- Understand the implications of health-related initiatives in order to vote;
- Determine which health websites contain accurate information and which do not and;
- Analyze risk factors in advertisement for prescription medicines (p.41).

Keeping these examples in mind, it becomes clear that, as more youth arrive on campuses, the following factors must be taken into consideration:

- The mission of colleges and universities is to develop successful graduates. (Council for the Advancement of Standards in Higher Education, 2008)
- Successful graduates are more likely to engage in life-long positive health behaviors (U.S. Department of Health and Human Services, 2009).
- A reduction or at least awareness of risky behaviors increases student's chances of academic success (The Condition of Education, 2004).
- The current state of health care in the United States requires that an individual possess certain skills related to health literacy (Institute of Medicine, 2004).
- In addition to career/professional preparation, college graduates need health literacy skills to promote and protect health as well as to prevent disease, understand, interpret, and analyze information (National Prevention Council, 2011).

Furthermore, previous statistics are reflective of national trends. The university under study is located in the South, in a state with the seventh highest rate of adult

obesity and the third highest ranking for obese children (Trust for America's Children, 2010), the third highest poverty rate (19%) and the second highest national rate of smokers (25%) (Centers for Disease Control and Prevention, 2010). It ranks 22nd in unintentional pregnancies among females between the ages of 15-19 (Guttmacher Institute, 2010) and, has the fourth lowest percentage of residents with college degrees (29%) (Lumina Foundation for Education, 2012). Therefore, it is likely that students coming to the university under study may already engage in, be affected by, or not understand the consequences of negative health-risk behaviors that can create barriers to successful academic performance. It seems logical that a post-secondary institution would want to recognize these potential barriers and take proactive steps to increase awareness as well as educational opportunities to improve health literacy skills, especially when one of the 'characteristics' of a graduate of the university under study is to "understand the importance of the behaviors necessary to maintain a healthy lifestyle" (<http://www.murraystate.edu/academics/UniversityStudies/Characteristics.aspx>).

Purpose of Study

The primary purpose of this study was to determine if the university under study had adequate health-related programs, services, and supports in place to develop health literate young adults. A secondary purpose was to identify strengths and gaps in these programs, services, and supports, which, if addressed, could increase the likelihood that college graduates would be health-literate.

Need for the Study

A person's health status can be directly linked to the level of educational attainment (The Condition of Education, 2004). As more and more college students come to post-secondary institutions with a plethora of negative health-risk behaviors, it becomes necessary for those institutions to be aware and proactive to prevent students so that these behaviors do not impede upon their academic success. The function of this case study was to assess student health needs and determine whether programs, services, and supports currently in place at one selected university were sufficient to meet those identified needs, therefore, supporting a more health-literate, well-balanced college graduate.

Research Questions

This research study was designed to answer three broad research questions: 1) What are the health-related needs and concerns among selected university undergraduates? 2) What is the level of awareness and utilization of identified health-related programs, services, and supports by university undergraduate students? 3) What are the strengths and gaps among these identified health-related programs, services, and supports?

Significance of the Study

Developing lifelong learners is central to the mission of higher education institutions. This study, therefore, could lay the groundwork for future studies in an effort to improve available services from both Student Affairs and Academic Affairs directly related to the health-related needs of students. It also serves to identify areas in

which student retention efforts could be improved, working within the university's stated missions and goals.

This case study may prove to be a tool for other postsecondary institutions to evaluate their own programs, services, and supports in accordance with standards that are now a part of the accreditation process within postsecondary institutions. Utilizing case study methods, such as document analysis and personal observations, divisions/departments within a university can determine how effectively their target audience is being reached.

Additionally, the information collected from this study could be used as a justification for both the role and the need for health education as a component of the core curriculum within higher education as well as to develop health-literate college students.

Research Design

This study used a case study approach to generate characteristic qualitative research. According to Creswell (1998), characteristics of qualitative research includes the following: a natural setting for data collection; the researcher as a key component of the data collection; data that can be collected through words and pictures; outcomes as a process versus a product; the opportunity to focus on the participants' perspectives and their meaning; and the analysis of data inductively. The case study approach is useful in illustrating a problem, suggesting means for solving the identified problem, and determining areas for further research.

Data Collection

The basis of this case study consisted of in-depth interviews with the representatives from Housing, Dining Services, Athletics, The Student Wellness Center, Health Services, Office of Student Disability Services, The Provost, The President, First Year Experience/Counseling and Testing Center, Student Affairs, and Public Safety. Documents, flyers, hand-outs and brochures were collected at the time of personal interviews, and web-page content from each of the aforementioned departments was reviewed.

Data collection occurred through four processes: 1) personal interviews; 2) student focus groups of selected undergraduates, to include all class standings and a variety of majors; 3) one focus group of Campus Ministers as a collective group; and 4) analysis of relevant documents and web-page content.

Assumptions

1. Institutions of higher education have a vested interest in the health and wellness of their students.
2. Health-related skills directly influence health-related behaviors. Similarly, these behaviors have a direct (either positive or negative) impact on academic performance.
3. The university under study's programs, services, and supports are in place to enhance students' academic success.
4. All individuals who participated in focus groups and personal interviews answered honestly.

5. Documents provided by interviewees were relevant to health-related programs, supports, and services available on the university under study.

Limitations

Certain factors beyond my control included:

1. My experiences as both the Coordinator of Campus Recreation (within the Department of Student Affairs) and as an adjunct teacher at the university under study may affect my interpretation of the data.
2. My previous role as the Coordinator of Campus Recreation for 13 years may be seen as biased in regards to assessing program effectiveness.
3. My pre-existing working and personal relationships with interviewees may have caused responses to be less than accurate due to a perceived negative image, or admission of poor service.
4. The university under study is considered a “suitcase campus” (i.e., a significant portion of students are commuters and are only on campus Monday-Thursday).
5. The selected organizations and documents selected for analysis may not be the only ones that address health literacy.

Delimitations

Restrictions to the study under my control included:

1. Only one institution of higher education was under study.
2. No pilot study was conducted.

3. By conducting five focus groups, student participant opinions cannot be considered reflective of the entire student body.
4. Assessment of existing programs, services, and supports from both Student and Academic Affairs among the university under study was only representative of the academic year 2011-12.
5. Personal interviews were limited to selected individuals within Student Affairs, the Provost, Captain of Public Safety, and the Senior Associate Athletic Director.
6. Since there are no core curriculum courses addressing health specifically, no academic components were examined.

Definition of Terms

For the purpose of this study, the following terms were used throughout.

Academic Success- Successful students are those who have “learned to effectively balance the social and academic aspects of school, expect to succeed, and may be described as socially proficient, goal oriented, and intrinsically motivated” (Ellis, 1994).

Case Study- “An examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group” (Merriam, 1988, p. 9)

Health- as cited by the World Health Organization constitution of 1948, “a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity” (World Health Organization, 1948).

Health literacy - “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”

Parker and Ratzan (2010, p. 20)

Health literacy- “the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand, and use information in ways which promote and maintain good health” (Nutbeam, 2000, p. 264).

Personal and Social Competence- “a variety of intrapersonal skills, interpersonal skills, coping skills and judgment skills.” (Pittman & Cahill, 1992 p.).

Program – for the purpose of this case study, an example of a program at the university under study would be the “Realities on Campus” skit performed by upperclass peer educators. This skit is performed at the beginning of the academic year at the “Welcome back to campus event” and serves as a guide to in-coming freshman as to how to handle situations and experiences on college campus which include health-risk behaviors such as; alcohol and drug use, sexual behaviors, how to practice time management skills to reduce the likelihood of academic stress and/or pressures, and communication skills for personal, residential, classroom and working relationships

Retention- The normal progression of a student with continuous enrollment of a full-time load resulting in graduation after approximately four years (Gale Encyclopedia of Education, 2002).

Service – for the purpose of this case study, an example of a service at the university under study would include a department or facility on campus in which a

student can obtain a tangible health-related benefit. Examples include the Wellness Center, Health Services, Counseling and Testing Services, and Dining Services.

Six Dimensions of health:

Spiritual– A set of guiding principles, values and beliefs that give meaning and purpose to life (Fahey, Insel, & Roth, 2011, pp. 2-3).

Interpersonal – The ability to develop and maintain satisfying relationships (Fahey, Insel, & Roth, 2011, pp. 2-3).

Intellectual – The continual process of learning, solving problems and stimulating mental functions (Fahey, Insel, & Roth, 2011, pp. 2-3).

Emotional – The ability to deal with feelings and emotions appropriately (Fahey, Insel, & Roth, 2011, pp. 2-3).

Physical – overall condition of the body and the absence of disease (Fahey, Insel, & Roth., 2011, pp. 2-3).

Environmental – The livability of a person’s surroundings (Fahey, Insel, & Roth, 2011, pp. 2-3).

Student Affairs- “provide services and develop programs that affect all aspects of students' lives inside and outside of the classroom. Some of the things student affairs professionals do in their day-to-day jobs include enhancing student learning, helping guide academic and career decisions, mentoring students, and developing leadership skills” (www.naspa.org, 2010).

Support – for the purpose of this case study, an example of a support at the university under study would be the Office of Student Disability Services (OSDS) in which students with a documented need for assistance such as visual and hearing

impairments, extended test times, or a test reader can be made available to them to increase their chances of academic success. Additionally, this office provides support/transition assistance for military veterans coming to college after their term of service.

Summary

With over 20 million 18-24 year-old college students in the United States (National Center for Education Statistics, 2010) many of whom exhibit low levels of academic preparedness and high-risk taking/negative health behaviors, (which lead to chronic illness, disability and premature death) the outlook for our future generations is not positive.

It seems evident that our current public education system places very little value on teacher preparedness in health-related content, opting instead to focus more on subjects for which students must take standardized tests. Unfortunately, the awareness that simple health-related content can be incorporated into other curricula areas has been significantly overlooked. As a result, students entering college with limited academic and health literacy skills are more likely to encounter health-related barriers that impede academic performance.

If colleges and universities truly strive for well-balanced graduates, they must ensure quality health-related programs, supports and services that are accessible, available and perceived as effective.

A case study was conducted to determine if the university under study had adequate health-related programs, services, and supports in place to develop health

literate young adults. A secondary purpose was to identify strengths and gaps in identified health-related programs, services, and supports, which, if addressed, could increase the likelihood that college graduates would be health literate.

CHAPTER 2

REVIEW OF LITERATURE

This chapter is to present a review of literature relevant to this study. This literature review is divided into sections that include health risk behaviors specific to college students, health literacy, and academic responsibility. The Youth Risk Behavior Surveillance Survey (YRBS), conducted every two years by the CDC, asks students to respond to statements about their personal behavior patterns within the past 30 days, during the past year, and in their lifetime. Data from the most recent survey (2009), specific to 12th graders (n=3,610) is indicative of some very troubling trends among future college freshmen. The following are selected risk behaviors that are in need of attention:

- 26% of 12th grade students are currently obtaining and using prescription pain pills (OxyContin, Percocet, Vicodin, Adderall, Ritalin and Xanax) one or more times in the previous 12 months;
- 15% are driving after drinking one or more times in the previous 30 days;
- 25% have been engaged in a physical fight one or more times in the previous 12 months;
- 10% have been a victim of dating violence (hit, slapped or physically hurt on purpose) one or more times in the previous 12 months;
- 8% were forced to have sexual intercourse (when they did not want to) at least once in their lifetime;

- 25% expressed feelings of sadness or hopelessness (stopped doing usual activities every day for two or more weeks in a row during the previous 12 months);
- 56% have tried cigarettes at least one or more times during their life, while 16 % are daily users –one or more times in the previous 30 days;
- 80% have tried alcohol (at least one drink on one day in their lifetime);
- 34% have been involved in binge drinking (4 drinks in a row for females and 5 for males) on at least one day in the previous 30 days;
- 45% have tried marijuana at least one or more times during their life, while 24% are regular users-one or more times in the previous 30 days;
- 8% have tried cocaine at least one or more times during their life, and 3% are current cocaine users- one or more times in the previous 30 days;
- 9% have tried inhalants one or more times during their life;
- 8% have tried ecstasy one or more times during their life;
- 3% have tried heroin one or more times during their life;
- 4% have tried methamphetamines one or more times during their life, and;
- 10% have tried hallucinogenic drugs one or more times during their life.

Data also indicated a definite relationship between engagement in risk behaviors (alcohol, drugs, unprotected sex, riding with an impaired driver, suicidal thoughts, carrying a weapon) and lower academic achievement. Specifically, those students who reported their grades to be mostly “Cs,” “Ds,” and “Fs” engaged in more health-risk behaviors such as carrying a weapon to school, smoking, alcohol use, engaging in

sexual activity, watching television three or more hours per day, and not engaging in regular physical activity (U.S. Department of Health and Human Services, 2009).

The concern with these statistics is that more and more of these students are appearing on college campuses inadequately prepared to meet the academic standards of typical post-secondary institutions (The Condition of Education, 2004). The result of this inadequacy is an increase both in the number of post-secondary institutions offering remedial courses in mathematics and reading, as well as the length of time students are remediating in preparation for classes within their course of study (The Condition of Education, 2004). The Washington State Department of Health released a publication entitled, *Research Review; School-based Health Interventions and Academic Achievement* (Dilley, 2009). According to this report;

“The more health risks students have, the less likely they will succeed or graduate on time. Each health risk that can be removed has the potential to positively influence academic behaviors. Improvement of even a single health factor may help improve academic achievement (p iii).”

Purpose of Study

The primary purpose of this study was to determine if the university under study had adequate health-related programs, services, and supports in place to develop health literate young adults. A secondary purpose was to identify strengths and gaps in these programs, services, and supports, which, if addressed, could increase the likelihood that college graduates would be health-literate.

First Year Experience

One of the first large-scale initiatives within higher education to address the concern of low academic preparedness was “The First Year Experience” (Barefoot, 2000). The focus of this program was to group together incoming freshman and involve them in activities geared towards orientations to campus, housing and dining, interactions with faculty members as well as some type of skit or awareness campaign effort to address campus safety issues (e.g., binge drinking, risky sexual behaviors, relationship violence, staying safe on campus, and so on.) (Barefoot, 2000). Barefoot (2000) continued to point out that most colleges and universities that have and continue to use this format include the following research-based objectives in their programs:

- Increasing student-to-student interaction,
- Increasing faculty-to-student interaction,
- Increasing student involvement and time on campus,
- Linking the curriculum and the co-curriculum (co-curriculum-courses that compliment, but are not part of the regular curriculum),
- Increasing academic expectations and levels of academic engagement and,
- Assisting students who have insufficient academic preparation for college,

According to Tinto (1993), for students to truly make connections to their institution, they must first possess academic skills to do college work (i.e., comprehend lectures/take effective notes, read and understand textbook content, participate in class discussions, and follow through with assignments). If, a strong academic connection is not established at an early point in a college student’s career, he/she most likely will not

feel like a validated member of that institution (Tinto, 1993). This lack of connectedness, in turn, could result in a negative impact on retention. Simply put, if colleges and universities are not making connections often at the lowest possible level, they then fail at following their own institutional mission (Tinto, 1993).

Likewise, chapter one of Upcraft and Gardner's book, *The freshman year experience: Helping students survive and succeed in college* (1989), identifies six key elements in student success that can be closely aligned to the six dimensions of health/wellness:

1. Developing Academic and Intellectual Competence- Students are confident in their abilities to learn in the college setting.
2. Establishing and Maintaining Interpersonal Relationships – Student can establish and sustain platonic and romantic relationships.
3. Developing Identity- As students continue in their academic careers, engage in student organizations, and peer relationships, they develop a sense of self, purpose, and direction.
4. Deciding on a Career and Lifestyle- it is important for students to explore and determine a career path relative to their interests to sustain academic success.
5. Maintaining Personal Health and Wellness – Independent living is a time in which health behaviors (positive or negative), if not already, will be established. During this time, students should be forming healthy habits and taking care of themselves.
6. Developing an Integrated Philosophy of Life – Students who are living independently for the first time have the opportunity to examine and test personal

beliefs as well as potential to determine new philosophies to carry them beyond their first year of college.

Health Literacy

Research-based evidence has shown a positive correlation among health literacy, health outcomes, and health care expenditures (IOM, 2004). Moreover, health literacy is the single largest factor involved in both preventative and curative treatment as individuals understand how to search for the best treatment options related to specific medical conditions, seek out medical providers, and obtain diagnostic services (Vernon, Trujillo, Rosenbaum, & DeBuono, 2007). As a result, individuals with low health literacy inevitably have poorer health statuses and are less likely to engage in preventative services or screenings (Vernon, Trujillo, Rosenbaum, & DeBuono, 2007).

Kickbush's definition from the *International Encyclopedia of Public Health* (2005), states:

Health literacy is the ability to make sound health decisions in the context of everyday life – at home, in the community, at the work place, the health care system, the market place and the political arena. It is a critical empowerment strategy to increase people's control over their health, their ability to seek out information and their ability to take responsibility. (p. 206).

Health literacy also includes social, individual, and cultural factors, in addition to a large array of skill sets, such as language, math, and reading (IOM, 2004). For individuals to be considered health literate, they must have the ability to understand our complex healthcare system, make simple decisions in regards to health promotion and lifestyle choices, advocate for themselves and family members in health related decisions and medical treatment, and communicate effectively with both health care

providers and insurance companies (IOM, 2004). So, why is this important? When someone truly understands an idea or concept, he/she can explain it, can interpret it, and can apply it (Wiggins & McTighe, 2005). More than half of all adults struggle to comprehend basic health information. A contributing factor to this problem is that approximately one-third of the adult population in the United States has limited literacy (Vernon, Trujillo, Rosenbaum, & DeBuono, 2007).

Conversely, individuals with high literacy may not have high health literacy primarily because they have never felt as though it is important. Examples of a measure of health literacy may be as simple as filling out medical paperwork; understanding instructions as to the dosage and timing regarding a prescription; follow through care on discharge papers for physical therapy exercises; breaking down the components of a food label; and interpreting information presented in a brochure for a preventative screening (IOM, 2004).

People with low literacy, in general, oftentimes can miss out on media campaigns or educational programs due to an inability to read, analyze, or interpret information, and unfortunately, are too embarrassed to ask for help or clarification (Vernon, Trujillo, Rosenbaum, & DeBuono, 2007). Health-related documents (consent forms, and others) often are written at reading levels that may be beyond a person's comprehension, which can create even more of a barrier. It is important to remember that literacy is not limited to writing, but also includes mathematics and science. For example, a person with limited mathematic and/or science skills would have trouble calculating what percentage of their health insurance would be covered for a medical procedure, or understanding how certain drugs can be altered or ineffective when taken together.

By the same token, achieving health literacy is essentially the same for mastering skills needed to be successful in life in this time of technological advances and self-reliance. According to Parker and Ratzan (2010):

An individual's ability to read, understand, and act on health information is ultimately determined by the clarity and complexity of the required text. ...Health literacy occurs when the skills and ability of those requiring health information and services are aligned with the demand and complexity of information and services (p.20).

The Partnership for 21st Century Skills is an advocacy group that works to help K-12 schools develop skill based learning on three main principles: (1) learning and innovation, (2) information, media, and technology skills, and (3) life skills (initiative, self-direction, social and cultural skills, leadership and responsibility) (Deal & Hodges, 2009). It, therefore, seems logical that institutions of higher education should follow the same pattern by offering programs, services, and supports that help develop health literacy among college students in an effort to ensure academic success as students, graduates, and adults.

Why is this so important? Data collected from the National Center on Addiction and Substance Abuse at Columbia University (2005) indicated that 69% (5.4 million) of full-time college students reported drinking, abusing controlled prescription drugs, using illicit drugs or smoking; 49.4% reported binge drinking; and 45% reported engaging in two or more other forms of substance use, *within the past month* (p. 4). The list of health-related issues among college students is seemingly endless, and includes some of the following:

- Dietary patterns and eating behaviors,
- Physical activity,
- Obesity,
- Alcohol abuse and misuse,
- Mental health issues such as stress, anxiety, and depression,
- Sexual behavior leading to STDs and unintended pregnancy,
- Drugs abuse and misuse,
- Tobacco use,
- Lack of sleep and,
- Violence on campus including intentional and unintentional injuries.

These [often negative] health-risk behaviors have become so overwhelming to college and university administrators and health professionals that the American College Health Association (2000) has developed a broad spectrum survey that encompasses self-reported behaviors of college students in an effort to increase awareness and educational efforts.

Originally established in 2000, this report now offers the largest available data (n=30,263) exclusive to college students from public, private, small and large institutions of higher education (National College Health Association, 2010). This report indicates that many college students (who often come to college with more than one health-risk behavior) are seemingly not receiving adequate, if any, information about how to modify or prevent these behaviors. Table 1 reflects student survey responses in regards to a specific health issue.

Survey participants were asked: 1) If they were given any information about a particular health issue from their college/university, and 2) If they would have been interested in receiving information about a particular health issue. If, these data are truly reflective of the larger population of college students, then colleges and universities have failed to address issues and concerns that are correlated with academic performance and the ability to be successful (The National Center on Addiction and Substance Abuse at Columbia University, 2007).

Dietary Patterns and Dieting Behaviors

College campuses can become the land of opportunity with all-you-can-eat dining options, popular chain restaurants right on campus (in which students may be free to use their campus meal card) and vending machines in every building (Brunt, Rhee & Zhong, 2008). This “convenience factor” commonly results in poor food choices, such as fast food, high carbohydrate, and sugary snacks, many of which have low nutritional value (Brunt, Rhee & Zhong, 2008). Additionally, college students may skip meals in an effort to control weight, which, conversely, can contribute to weight gain and increase nutritional risk (Brunt, Rhee & Zhong, 2008). Consistently obtaining a variety of foods (dairy, fruits, and low fat sources of meat / proteins) is a key aspect in meeting current dietary recommendations.

Table 1

Survey Responses, American College Health Association

Health Issue	Percentage of Student Who Did Not Receive Information	Percentage of Students Requesting Information
Sleep difficulties	77	49
Grief and loss	70	65
Relationship difficulties	69	61
Eating disorders	68	74
Injury prevention	68	66
Suicide prevention	66	69
How to help others in distress	64	50
Tobacco use	63	78
Nutrition		
Pregnancy prevention	60	70
Sexually transmitted disease infection / prevention	60	64
Violence prevention	59	67
Depression/anxiety	50	56
Cold/flu/sore throat	44	58

In 2008, Brunt, Rhee and Zhong conducted a study of college undergraduates (n=557) to assess weight status, health behaviors, and dietary values using BMI (body mass index) to categorize between underweight, healthy weight, overweight, and obese. Results indicated that 33% of the respondents were overweight or obese, while 8% were underweight. Interestingly, 41% of the overweight/obese students lived off campus or with parents. Further results indicated men were three times more likely to be overweight or obese than women. Freedman's (2010) survey of college freshman (n=755) reported 66% of on-campus students stated their diet had worsened since starting college as compared to 54% of off-campus students, who indicated that their diet had stayed the same. Gruber (2008) suggested that women, more so than men, tended to be more influenced by their peers (i.e., social network) in regards to lifestyle behaviors. Women, in general, within their social network will support each other in healthful eating habits, whereas men are less encouraging (Gruber, 2008). Men, however, are typically more inclined to be physically active and less likely to encourage (within a social network) healthful eating habits. This gender differentiation presents the issue of perceived support for dieting and exercise among male and female social networks (Gruber, 2008).

In regards to food choices, college students reported that they consumed one or less servings in each of the following categories: fruit (33%), meat (17%), dairy (10%), grains (9%), and vegetables (9%). (Brunt, Rhee, & Zhong, 2008). Additionally, results indicated 95% of students chose some type of fatty, sugary, and /or salty snack at least once a day, and 33% admitted to choosing those same snacks at least three times per day (Brunt, Rhee & Zhong, 2008). These data are reflective of the need for *Healthy*

Campus 2010's push to increase college student intake of dairy products as well as fruits and vegetables (Freedman, 2010).

In September of 2006, the National Eating Disorders Association (NEDA) released results of their survey conducted through a partnership with Global Market Institute Inc., that sought to measure college students' awareness and prevalence of eating disorders. NEDA was able to collect data via on-line surveys of 1,002 college graduate and undergraduate students across the United States. Those participating in the survey were comprised of undergraduate through post baccalaureate. Participant demographics included Caucasian (78.9%), African-American (7.6%), Asian (8.2%), and Hispanic (7.2%). Gender breakdown was as follows: 63.5% women and 36.5% men (GMI, 2006, p.2). Results of this study indicated that 20% believed that "at some point they have suffered from an eating disorder" (GMI, 2006, p.2). Of those who stated that they either currently had or in the past had had an eating disorder, 75% were never clinically treated. Additionally, 57.3% of those who admitted to struggling with an eating disorder did so because of "cultural pressures to be thin." (GMI, 2006, p.2).

Physical Activity

The American College of Sports Medicine (ACSM), along with the American Heart Association (AHA), released a revised set of recommendations for all citizens of the United States (American College of Sports Medicine and American Heart Association, 2007). These revised guidelines call for 30 minutes of moderate-intensity daily physical activity five days per week *or* vigorous-intensity cardiovascular activities 20 minutes a day/3 times per week combined with two days-per-week of strength

training that involves eight to 12 repetitions of eight to 10 different types of strength training exercises (ACSM & AHA, 2007).

The connection between long-term health sustained from regular exercise has been well established and documented (Thompson, et. al., 2003). Keating et al., (2005) reported only 38% of college students engage in regular vigorous activity, 20% in regular moderate activity where-as in high school, 65% of students reported regular vigorous activity and 26% regular moderate activity. Their data are suggestive of a decrease of beneficial physical activity from high school into college. *Healthy Campus 2010* identified physical activity as one of the six priority health risk behaviors for college populations (National College Health Association, 2012). Institutions of higher education are in a unique position to help foster more physical activity in a variety of ways, such as developing more environmentally friendly options to encourage increased physical activity, such as constructing more sidewalks and or bike paths/ trails around campus. Motivational signs can be posted in campus buildings to encourage students to take the stairs instead of the elevator, as well as increased awareness about campus and community fun runs, bike races, recreational leagues, etc. (Keating et al., 2005). Keating et al. (2005) also noted students' motivation for engaging in physical activity to be either intrinsic or extrinsic. Intrinsically motivated students were more likely to be physically active for the competition, affiliation, enjoyment, and challenges. Extrinsically motivated students were more concerned with appearance and social recognition.

Table 2 – ACSM (2007)

Examples of Moderate vs. Vigorous Intensity Activities

Moderate intensity	Vigorous intensity
Walking briskly	Race walking/jogging/running
Water aerobics	Swimming Laps
Bicycling slower than 10 mph	Tennis (singles)
Tennis (doubles)	Aerobic dancing
Ballroom dancing	Bicycling 10 mph or faster
General gardening	Jumping rope
	Heavy gardening
	Hiking uphill or heavy backpack

Obesity

According to the 2010 *Surgeon General's Vision for a Healthy and Fit Nation*, the number of Americans considered obese is now at epidemic proportion (Benjamin, 2010). Addressing this issue is on the national forefront due to the fact that obesity is responsible for over 100,000 *preventable* deaths every year (Benjamin, 2010).

Preventable deaths are deaths that could have been avoided by simply modifying lifestyle choices, such as dietary behaviors and regular exercise. For adults with a BMI

(Body Mass Index) over 45, life expectancy can be decreased by up to 20 years (American Heart Association, 2005).

Over the last few decades, the number of obese children has tripled in the United States (Benjamin, 2010). This increase is cause for concern due to the fact that obese children have a 70% chance of becoming obese adults and an 80% chance if one or more parent is overweight or obese (American Heart Association, 2005). In addition to health complications, obese individuals often may experience social stigmatization, discrimination, and psychological problems (Benjamin, 2010). The American Heart Association (2005) reported that the prevalence of obesity since 1991 has risen over 75% among individuals 20 years old.

Examples of health complications and diseases associated with obesity include: high blood pressure, high cholesterol, type 2 diabetes, stroke, gallbladder disease, coronary heart disease, osteoarthritis, sleep apnea, respiratory diseases, and some forms of cancer such as breast, endometrial, prostate, and colon (Benjamin, 2010). Likewise, obesity is targeted as one of the major Leading Health Indicators in *Healthy People 2020*. Leading Health Indicators are reflections of the population's public health concerns within the United States.

Obesity and overweight can be directly linked to the following factors, which can be addressed with the appropriate educational information:

- Calorie intake and portion size;
- Proper nutrition;
- Regular physical activity;
- Sedentary lifestyle and;

- Mental health/stress relief (Benjamin, 2010).

The University of New Hampshire has created a program called the Young Adult Health Risk Screening Initiative (YAHRSI). YAHRSI is directed by UNH faculty and students of the Nutrition Program, housed in the Department of Molecular, Cellular, and Biomedical Sciences. In addition, faculty and students from the Kinesiology Department provide expertise for the Fitness Assessment. UNH students (18-24 years old) are recruited from the introductory nutrition course. Because this is a large general education course, it typically enrolls approximately 900 students annually. As a result, it is estimated that 35-40% of all UNH students participate in YAHRSI prior to graduation. Several of the YAHRSI faculty published a study in the *Journal of the American Dietetic Association* in 2009, which reported results from a study of 1,701 undergraduates over a two-year period (2005-2007) to determine lifestyle behaviors, dietary patterns [including daily servings of fruits and vegetables], as well as smoking, exercise, and alcohol consumption rates. Using standard height and weight calculations for BMI, results showed that approximately one-third of the UNH students were considered obese. An alarming 8% of the males had symptoms of metabolic syndrome (a cluster of five risk factors: high blood pressure, excess abdominal fat, high blood glucose, high triglycerides and low HDL, or good cholesterol) (Burke, Reilly, Morrell, & Lofgren, 2009).

Alcohol Abuse and Misuse

The highest rate of alcohol dependence at any age is among individuals aged 18-20 years (USDHHS, 2007). The National Institute on Alcohol Abuse and Alcoholism's Task Force on College Drinking (2005) reported the following statistics:

- 1,700 college students between the ages of 18 and 24 die each year from alcohol-related unintentional injuries, including motor vehicle crashes;
- 599,000 students between the ages of 18 and 24 are unintentionally injured under the influence of alcohol;
- More than 696,000 students between the ages of 18 and 24 are assaulted by another student who had been drinking;
- More than 97,000 students between the ages of 18 and 24 years were victims of alcohol-related sexual assault or date rape.

Additionally, alcohol-related issues surrounding college drinking include poor academic performance, property damage, and unsafe sex (National Institute on Alcohol Abuse and Alcoholism, 2010). The United States Department of Education has developed a center specifically related to alcohol, drug abuse, and violence prevention. According to a published report (Hingson, 2005), over 400,000 college students between the ages of 18 and 24 have unprotected sex while under the influence of alcohol; and more than 100,000 college students between the same ages described themselves as having been too intoxicated to have known whether or not they consented to sex. An additional study, conducted by Hingson et al. (2005), determined that college students who began drinking prior to age 19 were more likely to develop early onset alcohol dependency and increased frequency of heavy drinking episodes.

Colleges and universities whose students engage in a high rate of drinking often experience more episodes of property damage, verbal and physical assault, sleep/study disruption, and sexual violence (Wechsler et al., 1995). Both Hingson et al. (2002) and Wechsler et al. (1995) attribute a high rate of violence and /or harassment including

serious arguments, or physical altercations such as pushing, hitting, or assaults of a more serious nature to college student drinking. It is estimated 600,000 college students per year have been involved in such engagements (Hingson et al, 2002).

The Core Alcohol and Drug Survey has been used to collect data from college students enrolled in two and four-year institutions. Funded by the U.S. Department of Education, the Core survey assesses students' attitudes, perceptions, and opinions about alcohol and other drug use, as well as personal use and consequences related to use. The most recent national report from 2006-08 indicated that 83.9% of students consumed alcohol in the past year, and 71.2% of them had consumed alcohol in the past 30 days (SIUC/Core Institute, 2010).

Furthermore, when asked if alcohol was a key component of 'social life" within specific populations, the following responses were given:

- 86.0% of males responded yes;
- 76.3% of females responded yes;
- 64.4% of athletes responded yes;
- 77.8% of fraternity members responded yes and;
- 71.7% of sorority members responded yes

Coincidentally, 53.1% of respondents also indicated that they believed the social atmosphere of the campus promoted alcohol use (SIUC/ Core Institute, 2010).

Another concern with regards to college students is binge drinking. Binge drinking is defined as five or more drinks in a row for a male and four or more drinks in a row for females on one occasion (National Institute on Alcohol Abuse and Alcoholism,

2010). Binge drinking is especially popular among minor students who cannot be served legally in restaurants and bars. In an effort to 'catch up' with their legal peers, "slamming or bonging" a beer or taking shots is a method used to feel alcohol's effects more quickly (National Institute on Alcohol Abuse and Alcoholism, 2010). This rapid intake is extremely dangerous and can result in alcohol poisoning. In some cases, this type of drinking has the potential to be life threatening as the central nervous system can slow breathing, and inhibit the body's gag reflex, resulting in choking to death on vomit (National Institute on Alcohol Abuse and Alcoholism, 2010). Wechsler et al. (2002) identified the environment surrounding the campus as a major factor in alcohol consumption (i.e. laws, availability and costs, policies and enforcement, and residential settings).

Literature on underage drinking is immense, and the problem is never ending. It comes down to fighting a part of American culture, a "rite of passage," and a habit often facilitated by adults (USDHHS, 2007). In the college setting, alcohol can be related directly to academic failure. The number of drinks students consume can be directly related to their grades (SIUC/ Core Institute, 2010). Alcohol use is often associated with missing class, performing poorly on tests and papers and, in general, falling behind (SIUC/ Core Institute, 2010). Research has suggested that, in comparison to A average students, B average students will consume 1.1 or more drinks per week; C average students will consume 2.7 or more drinks per week, and D/F average students will consume 6.4 or more drinks per week (SIUC/ Core Institute, 2010).

Mental Health

Along with alcohol, mental health has become a major concern and focus for institutions of higher education. Health professionals are trained on how to look for signs associated with mental health behaviors by monitoring daily patterns and routines. Lack of sleep and physical activity, drastic mood swings, and social isolation are just a few behaviors that typically surface when an individual is experiencing poor mental health (Bulbaltz, Brown & Soper, 2001). It is important to understand the underlying issues associated with mental health (e.g., the increasing diversity among college students [minorities and International students as well as gay, lesbian, transgender and bisexual], an increase of female students and first generation college students, and increased average age of undergraduates). On the same front, campus counseling centers are now dealing with a variety of problems that stem from family/ home life (e.g., domestic abuse, dysfunctional family situations, previous hospitalization for prior mental health issues, suicides, self-mutilation, eating disorders, stalking [both in person and via technology] and relationship violence) (Gallagher, Zhang & Taylor, 2003).

The following information was taken from the National Survey of Counseling Center Directors [on college campuses], which was conducted by Robert Gallagher from the University of Pittsburgh in conjunction with the American College Counseling Association (ACCA) (Gallagher, 2010). This 2010 survey consisted of responses from counseling center directors from 320 institutions representing 2.75 million students who are eligible for counseling services. This detailed report indicated that 91% of directors noted the trend of more and more students with severe psychological problems. The

following percentages reflect significant increases in perceptions of directors over a five-year period:

- 70.6% crisis issues requiring immediate response;
- 68% psychiatric medication issues;
- 60% learning disabilities;
- 45.7% alcohol abuse;
- 45.1% illicit drug use (other than alcohol);
- 39.4% self-injury (cutting to relieve anxiety);
- 25.2% sexual assault on-campus;
- 24.3% eating disorders;
- 23.2% career planning issue;
- 23.1% prior sexual assault / abuse related issues and;
- 95% who are already on psychiatric medication (Gallagher, 2010).

During the 2009 school year, directors involved in this survey reported 133 student suicides, 13% of which were current or former clients, 79% were males, 88% were undergraduates, 83% were Caucasian, 84% were undergraduate (Gallagher, 2010). Furthermore, 56% of these students were known to have reported relationship problems, 84% were depressed, 20% had academic problems, 18% had financial concerns, and 12% had health issues (Gallagher, 2010). Likewise, 28% of directors noted an increase over the previous 5 years of student violence on campus, equating to 358 cases of obsessive pursuit or stalking during the past year (Gallagher, 2010). Included in these 358 cases, 168 students were physically injured; and seven were killed by their pursuers.

To further support these data, a comprehensive web-based survey conducted by the National Research Consortium of Counseling Centers in Higher Education (2006), which is housed at the University of Texas at Austin, surveyed 26,000 undergraduate and graduate students. This survey found that 55% of undergraduates (n=15010, average age 22) contemplated suicide, 18% seriously and 8% actually made an attempt. The study also found that of those who did complete an attempt, just under half actually told someone of their intentions. Reasons for suicidal thoughts included relationship problems, a desire to end their life, and school-related problems (Drum, 2009).

Referring back to the Surgeon General's 2010 report regarding obesity, a connection exists linking obesity and mental illness. As many as 83% of individuals with mental illness are overweight or obese. Mental illness and obesity often create the following cycle: social isolation-sedentary lifestyle - physical inactivity – mood instability – low self-esteem (Benjamin, 2010). Youth and adolescents between the ages of 4-19 undergoing treatment for serious mental illness can experience up to a 7% total body weight increase within 12 weeks (Benjamin, 2010). Furthermore, individuals with severe mental illness also have a decreased life expectancy of only 53 years of age, a result not of the mental illness, but of the obesity-related complications and/or diseases (Benjamin, 2010).

Sexual Behaviors

College life offers young adults the freedom to expand their sexual experimentation opportunities. Depending upon their high school education, college

students may or may not have been exposed to a full realm of sexuality education (SHPPS, 2010). As of 2008, the Guttmacher Institute's *State Policies in Brief*, sexuality education in the United States is administered accordingly:

- 20 states and the District of Columbia mandate that public schools teach sexuality education, many of which place requirements on how abstinence and contraception are treated when taught (i.e., each individual district can determine the curriculum format);
- 23 states require that abstinence be *stressed*; 10 states require that it only be *covered*;
- 14 states and the District of Columbia require that sexuality education programs cover contraception; no state requires that it be stressed;
- 35 states and the District of Columbia require the provision of STI/HIV education and;
- 36 states and the District of Columbia allow parents to remove their children from instruction pertaining to sexuality.

A 2004 study conducted by the University of North Carolina stated that one out of every two sexually active college students will contract a Sexually Transmitted Infection (STI) before the age of 25 (Hightow, et al., 2005). The most common STIs on college campuses include Chlamydia, Genital Warts (also known as Human Papilloma Virus) and Genital Herpes. Many people who are infected do not know it because either they experience no symptoms, overlook the symptoms they are experiencing, and/or disregard changes in their bodies. Seventy-five percent (75%) of women with Chlamydia do not experience symptoms at all (CDC, 2009). According to the CDC's

Sexually Transmitted Disease Surveillance, for both Chlamydia and Gonorrhea, the highest number of reported cases was among females between the ages of 15-24 years (2009). Furthermore, the South represents the highest number of cases of any of the four geographic regions of the United States (CDC, 2010). Among ethnicities, Blacks are significantly more likely to be infected with an STI. The Gonorrhea rate among Blacks is 20 times higher than Whites and 10 times higher than Hispanics (CDC, 2005). Specifically, young Black females 15-19 years old bear the heaviest rate (CDC, 2005). As for Chlamydia, Blacks represented almost half of all reported Chlamydia cases in 2009, and young Black women aged 15-24 are the most affected (CDC, 2010).

Studies conducted by Crosby et al. (2005) and Parsons et al. (2000) found evidence to support that college students do have knowledge of how STIs are spread and that either practicing total abstinence or consistent condom use was the best method of preventing STIs. Typical reasons for not using condoms consistently included loss of sensation, interruption of intimacy, not having one at the time, and feelings of incompetence about putting one on (Crosby et. al., 2005).

The American College Health Association developed a document entitled *Healthy Campus: Making It Happen*, for the purpose of raising awareness and promotion of the Leading Health Indicators identified in *Healthy People 2010* specific to college students. Within this document, one of the largest identified needs is to reduce STIs on college campuses, as it has reached epidemic proportions among persons less than 25 years of age (Crosby et. al., 2005). The American College Health Association's 2010 report indicates, among survey responses, 42.5% of males had vaginal sex within the last 30 days as compared to 46.8% of females. By the same token, the reported

number of sexually-active males and females who indicated using a condom during their last vaginal intercourse was 47% and 51.9% respectively (ACHA, 2010). For females reporting methods to prevent pregnancy during vaginal intercourse, 59.1% reported using the birth control pill alone as compared to 61.3% who reported using a male condom (ACHA, 2010). As a side note, 15.8% of sexually active college students (male and female) reported using the 'morning after pill' or emergency contraception to prevent pregnancy (ACHA, 2010).

Drug Abuse and Misuse

The National Center on Addiction and Substance Abuse's (CASA) report (2007), *Wasting the Best and Brightest*, stated that "forty-nine percent (3.8 million) of full-time college students binge drink and/or abuse prescription and illegal drugs...and 1.8 million, (22.9 %) [full-time college students] meet the medical criteria for substance abuse and dependency" (p.10). This report was a four-year project that included surveys, interviews, and focus groups among college students across the United States. This 231-page report presented some alarming percentages in drug use habits from 1993-2005:

- 343% increase in opioid use (Percocet, Vicodin and OxyContin);
- 93% increase in stimulant abuse of Ritalin and Adderall;
- 450% increase in tranquilizers such as Xanax and Valium;
- 225% increase in sedatives such as Nembutal and Seconal;
- Daily use of marijuana more than doubled and;
- 52% increase in cocaine and heroin.

Furthermore, this report indicated that 37% of students actually reported a fear of a social stigma associated with substance abuse, which, in turn, kept them from seeking treatment. Thus, only 6% of students who did meet the medical criteria for drug dependence actually sought out treatment (The National Center on Addiction and Substance Abuse at Columbia University, 2007). This report also stated that 38% of college administrators essentially turn a blind eye to the drug misuse problem on campus by stating that it's a "normal rite of passage."

Joseph A. Califano, Jr., Founder and Chairman of CASA and former U.S. Secretary of Health, Education and Welfare, made the following statement in *Wasting the Best and the Brightest* (p. 11):

College presidents, deans, and trustees have facilitated a college culture of alcohol and drug abuse that is linked to poor student academic performance, depression, anxiety, suicide, property damage, vandalism, fights and a host of medical problems. By failing to become part of the solution, these Pontius Pilate presidents and parents, deans, trustees, and alumni have become part of the problem. Their acceptance of a status quo of rampant alcohol and other drug abuse puts the best and the brightest- and the nation's future- in harm's way (p.11).

Likewise, The National Council on Patient Information and Education published "A Resource Kit for America's College Campuses" available online at www.talkaboutrx.org to specifically address the growing problem of drug abuse/misuse (i.e., use not intended for original purpose), primarily in the area of prescription drugs, such as stimulants, sedatives, and pain relievers. Included in this brochure are further

supporting facts from both SAMHSA (Substance Abuse and Mental Health Services Administration) and NSDUH (National Survey on Drug Use and Health) that indicated one in four persons between the ages of 18-24 have used prescription medication for non-medical purposes at least once and that these same students were more likely to abuse alcohol, use cocaine, and/or smoke marijuana. Typically, reasons for college students' prescription drug abuse/misuse included (McCabe, 2007) to:

- Improve their grades;
- Concentrate more in class and maintain focus during all night study sessions;
- Diet;
- Reduce Stress;
- Get 'high' or 'feel good'
- Reduce nervousness at a party/social situation and;
- Enhance athletic performance enhancement.

Unfortunately, a common misconception associated with prescription medication abuse/misuse is that because it is authorized by a doctor and is FDA approved (as opposed to an over the counter or herbal product) it is, therefore, safe. Inherent risks associated with these medications include, but are not limited to, organ damage, seizures, increase in blood pressure and heart rate (which can contribute to heart attack or stroke), and certainly addiction/dependence (National Council on Patient Information and Education, 2011). Likewise, taking prescription medications inappropriately often is linked to other high risk behaviors (Monitoring the Future, 2010).

Tobacco Use

Smoking is the leading cause of preventable death in the United States (Center for Disease Control, 2011). Smoking is responsible for more deaths each year than alcohol, AIDS, car crashes, murders, suicides, and illegal drugs combined (CDC, 2011). A 2010 Executive Summary from the Surgeon General published by the Department of Health and Human Services (DHHS) entitled *How Tobacco Smoke Causes Disease; The Biology and Behavioral Basis for Smoking-Attributed Disease*, indicated the significant health impact and financial burdens associated with tobacco use in the United States,

Tobacco use in the United States can be attributed to \$193 billion annually in health care costs and loss of productivity... More than 1,000 people are killed every day by cigarettes, and one-half of all long-term smokers are killed by smoking-related diseases. A large proportion of these deaths are from early heart attacks, chronic lung disease, and cancers. For every person that dies from tobacco use, another 20 Americans continue to suffer with at least one serious tobacco-related illness. Every year, thousands of non-smokers die from heart disease and lung cancer, and hundreds of thousands of children suffer from respiratory infections because of exposure to secondhand smoke...tobacco smoke damages every single organ in the body (p. i).

Clete Snell, author of several publications related to youth/adolescent tobacco use identified five stages of adolescent smoking. The first of which is attitude, or image, such as rebellion, stress relief, or weight loss. The second phase is referred to as the “trying phase” in which smoking is used as a means of social acceptance influenced by

peer reinforcement. Third, the adolescent begins to smoke more frequently, but not yet on a regular basis. The fourth phase is when the adolescent starts to smoke at least once a week. The final stage occurs when the adolescent has become addicted to the nicotine as well as psychologically (Snell, 2005).

Several important connections can be made here. First, college students typically experience a significant amount of stress. Second, college females often are concerned with weight/body image. Third, the transition from living at home to gaining new independence from parents can contribute to rebellious, risk taking behaviors. Fourth, the importance of fitting in socially in a new environment will often play a role in engaging negative health behaviors. Finally, most college students underestimate the addictiveness of nicotine as well as their ability to stop smoking once the habit is formed (SAMSHA, 2008).

Snell (2008) also made a connection between sociodemographic, environmental, behavioral, and personal factors that influence the onset of smoking. Low socioeconomic status increases the likelihood of smoking as well as the ease of availability, having parents, siblings or other family members who smoke (positive attitude /general acceptance towards smoking), poor academic performance, and engaging in other health-risk behaviors such as alcohol and drug use.

Smokeless tobacco contributes not only to cancer of the mouth (especially when combined with alcohol usage) but also causes a condition in which the heart either pumps too little or no blood to the organs, therefore causing sudden death (CDC, 2011).

Lack of Sleep

Lack of sleep can be an issue for most age groups, from adolescents until late adulthood. From a health perspective, insufficient sleep can be associated with chronic health conditions such as diabetes, cardiovascular disease, obesity, and depression (CDC, 2009). College students, who are establishing a new personal freedom and independence, adjusting to new living environments, working, and trying to stay on track with academic requirements often experience significant patterns of sleep deprivation (Pilcher, Ginter & Sadowsky, 1997). Whether it is social or academic demands, by default, sleep seems to move to the bottom of the list of priorities, resulting in the development of irregular sleep patterns (Pilcher, 1997). Sleep can actually be measured in two forms: quality and quantity (Pilcher, 1997). Sleep quality is broken down and measured by six factors, which include:

- Sleep quantity;
- Length of time to fall asleep;
- Number of awakenings at night;
- Length of time to fall back to sleep after awakening;
- A feeling of fatigue / restfulness upon awakening in the morning;
- General satisfaction with sleep.

Curcio (2001) stated that “sleep quality and quantity are closely related to student learning capacity and academic performance.” He also noted “sleep loss is frequently associated with poor declarative and procedural learning in students” (p.323). Poor sleep patterns often characteristic of college students can contribute to increased tension, irritability, depression, confusion, and generally lower life satisfaction (Buboltz,

2001). Sleep is also an extremely critical time for the body to repair and restore itself (i.e., tissue repair and growth) as well as learning and memory consolidation. Simply stated, sleep is critical for the body's behavioral, physiological, and neurocognitive processes to occur (Curcio, 2006).

Buboltz (2001) indicated that students who attempt to 'catch up' on sleep during the weekend for lost sleep during the week may develop chronic psychomotor slowing and concentration problems. Pilcher and Walters (1997) suggested that college students with poor sleep habits often are not aware that their lack of sleep is contributing to their academic performance. But they blame external factors and often make statements, such as "I don't understand why I did so bad, I crammed all night" (Pilcher, 1997).

Violence on Campus

Sexual assaults on college campuses have received enough attention that Congress has gotten involved. In a 9-month academic period, it is estimated that 35 out of every 1000 college women will be victims of sexual assault (either completed or attempted) (United States Department of Justice, 2005). Statistics indicated that 80-90% of assaults were conducted by someone the victim knew personally (typically referred to as "acquaintance rape") (DOJ, 2005). The more intimate the relationship, the more likely it was for a rape to be completed rather than attempted (DOJ, 2005). Unfortunately, most women don't consider their attack as rape, thus did not report it if no weapon was used, there were no signs of physical violence, and/or if alcohol was involved in fear of social stigmatization (DOJ, 2005).

In 1990, Congress enacted the Cleary Act, which required institutions of higher education receiving federal funding to annually disclose information about crime, including specific sexual crime categories, in and around campus (United States Department of Justice/Office of Justice Programs, 2005). In 1992, an amendment was added to require schools to develop prevention policies and provide certain assurances to victims. The law was amended yet again in 1998 to expand requirements, including crime categories that must be reported (DOJ, 2005). The United States Department of Justice publication, *Sexual Assault on Campus: What Colleges and Universities Are Doing About It*, provided the following data in regards to required reporting:

- Only 37% of schools reported their statistics in the required manner (i.e., properly distinguishing forcible and non-forcible sex offenses as required by the Cleary Act);
- Additional areas of concern involved whether schools have a written sexual assault response policy; how they define sexual misconduct; who on campus is trained to respond to reports of sexual assaults; how students can report sexual victimization; what resources are available to victims; what investigation and adjudication procedures are followed once a report is made (pp. 3-5).

This report further recommended that campuses establish a formal policy about sexual assaults on campus as a way of addressing/recognizing the problem and making a commitment to deal with it. Institutions that clearly define forms of “sexual misconduct” in their student handbook or code of conduct leave no grey area for misinterpretation. Clearly defined behavioral definitions and scenarios can help establish levels of misconduct as well as what victims can expect if they choose to

report to law enforcement authorities (i.e., anonymity). To be fully compliant with Federal law, this policy must be widely and easily accessible to students (DOJ, 2005).

Likewise, training should take place among students, faculty, and staff. Typically, a victim of sexual assault will tell a fellow student first. This fellow student then becomes a “first responder” and should be able to clearly discern the appropriate course of action for the victim either from a previous on campus training or by accessing the institution’s code of conduct or student handbook. Among the 2500 institutions surveyed for this report, only 4 in 10 schools indicated offering any sexual assault training (typically only resident hall advisors and student security guards). Among schools that do provide training, only about half provide training to faculty and staff (DOJ, 2005). While almost half of all schools did provide a contact list, less than half of those provided services after hours (DOJ ,2005).

If students know what to do in the event of a sexual assault, they are more likely to report it, especially if they are aware of how the reporting process will take place (DOJ, 2005). It is important that the student not feel shamed or be subjected to school sanctions for consuming alcohol (if alcohol was a factor) as well as ensuring confidentiality and anonymity as much as possible. Nearly 75% of schools indicated that they did have a drug and alcohol policy on campus that most likely then became a barrier for the student to feel safe about reporting the assault (DOJ, 2005).

Student Affairs

Although the American Council on Education published the first *Student Personnel Point of View* in 1937, “Student Affairs,” in relation to post-secondary

education, is a relatively new concept. Developed in response to a more diverse population gaining access to higher education in the 1970s (i.e., women, minority races, veterans, non-traditional students, and students with disabilities) the traditional faculty side of academia was not prepared to handle all the “extra stuff” that came along with these new students (International Association of Student Affairs and Services Professionals, 2010). As a result, entire departments dedicated to housing, dining, cultural activities, recreational programming, career assistance, financial assistance and disability services emerged. By the 1990s, Student Affairs departments began to adapt the idea of student enhancement through learning outcomes that encouraged collaboration with teaching faculty (IASAS, 2010). While some institutions struggle with collaborative efforts between faculty and staff, the overall goal should be to work together to support the ‘whole student.’ Inevitably, higher education has a responsibility to help students reach their full potential while also developing citizens capable of contributing to the betterment of society (ACE, 2011).

The International Association of Student Affairs and Services Professional (IASAS) is an informal confederation of higher education student affairs /service professionals from around the world. In their 2001 publication, *The Role of Student Affairs and Services in Higher Education: A Practical Manual for Developing, Implementing and Assessing Student Affairs Programmes and Services*, they took the following position on the importance of collaborative partnerships across campus:

Student affairs and service professionals, along with the teaching faculty, generally are considered the experts on students, their development and their environments. They are closely linked to the institutional academic

mission and serve as invaluable links between students and the rest of the institution. They also serve as role models with high expectations of students and their capacities for learning (p.17).

Additionally, IASAS promotes collaborative faculty/staff efforts by pointing out the connections at the most basic levels, writing that:

There is increasing evidence that higher education also must address the most basic personal needs of students by providing a comprehensive set of out-of-classroom student services and programs commonly referred to as student affairs and services. These efforts should be designed to enable and empower students to focus more intently on their studies and their personal growth and maturation, both cognitively and emotionally....Student affairs and services professional theory and practice are informed by a number of academic disciplines. Student development theory draws from research in psychology, sociology, and human biology. Mental and physical health services rely heavily on medicine, psychiatry, clinical and counseling psychology, education, exercise science, and health education/wellness. The effective administration and leadership of the wide variety of student affairs and services is based, in part, on the theories of management, accounting, human resources, marketing, statistics and educational research, and leadership studies (p.6).

For any area of student affairs to be successful and adhere to the institutional mission and goals, it imperative that departmental staff maintains minimal competencies to include:

- Curriculum development and design;
- Budget development and resource allocation;
- Program administration;
- Effective operation within the context of institutional governance;
- Marketing accomplishments;
- Research evaluation, assessment and; knowledge of student;
- Staff supervision and professional development;
- Legal dimensions of working with university/college students and;
- Integration of appropriate technology into program/service delivery (IASAS, 2010).

Specific to each department, the IASAS also has developed a purpose and function as well as typical activities that would assist in administration of their programs (Tables 6-17, listed in Appendix). For the purpose of this study, the following areas will be reviewed:

- Senior Student Affairs and Services Officer ;
- Academic Advising ;
- Health Services;
- Counseling Services;
- Sports/Recreation/ Intramurals;

- Women's Center;
- Student Housing and Residence Life;
- Developmental Learning Centers;
- Disability Services;
- Dining/Food Services;
- Chaplaincy/Multi-faith Services and;
- New Student Programs and Services Orientation.

In summary, for over 70 years, the American Council on Education has worked towards examining Student Affairs from different perspectives and for different purposes (American College Personnel Association, 1997). Since that inception, organizations, such as the American College Personnel Association (ACPA) and the Student Affairs Administrators in Higher Education (NASPA) have taken on roles and responsibilities to help ensure that those working within the field of Student Affairs have the best possible knowledge and resources to serve college students. The ACPA maintains that "Higher education has a responsibility to develop citizens capable of contributing to the betterment of society... [as well as] a duty to help students reach their full potential." (American College Personnel Association, 1997, p.2). Additionally, the National Academic Advising Association works collaboratively with the aforementioned organizations and strongly supports the integration of academic advising along with student affairs departments by stating that "it should be clearly established that academic advising is the direct link between the academic affairs and student affairs components of a campus that can build a culture of student retention" (Nutt, 2003 p.2).

Summary

To summarize, Chapter Two is a review of literature stating the high risk behaviors many college undergraduates are engaging in that can negatively impede academic performance. Chapter Three serves to provide the research questions to determine the health-related needs of college students from their perspective, availability of programs, services, and support at the university under study, and perceptions of those programs, services, and supports.

CHAPTER 3

METHODS

Purpose of the Study

The primary purpose of this study was to determine if the university under study has adequate and appropriate health-related programs, services, and supports in place to develop health-literate young adults. A secondary purpose is to identify strengths and gaps in these university health-related programs, services, and supports, which, if addressed, could increase the likelihood that college graduates would be health literate.

Research Questions

This research study serves to answer three broad research questions: 1) What are the health-related needs and concerns among selected university undergraduates? 2) What is the level of awareness and utilization of programs, services, and supports by university undergraduate students? 3) What are the strengths and gaps among identified health-related programs, services, and supports?

This chapter describes the research design, study setting, and study sample as well as details strategies for data collection, analysis, and interpretation. In addition, there is discussion related to ensuring the element of trustworthiness between the researcher and the participants.

Research Design

This research study used a case study approach, which was bound by time and place. In this case study, the system was comprised of selected health-related

programs and services administered by selected divisions within Student Affairs, Public Safety, the Provost Office, The President, and the Athletic Department at the university under study. A case study consists of “detailed, in-depth data collection involving multiple sources of information rich in context” (Creswell, 1998). Case study, as a qualitative method, can be effective in a study such as this one to determine the level of appropriateness, accessibility and utilization of current health-related programs, services, and supports. Students who participated in focus group interviews identified their health related needs and expressed their level of awareness and perceptions of the health-related programs, services, and supports available at the university under study. One focus group was also conducted with the Campus Ministers, to discuss spiritual resources available to students and to what degree those resources appear to be utilized. Additionally, all existing documents relevant to programs, services, and supports were reviewed.

Study Setting

This case study was bound by time and place. The duration of this study was two months during the Fall term of 2011. The university under study is a tax-supported institution comprised of five academic colleges, a School of Nursing, and a School of Agriculture. Furthermore, it is a mid-size school located in the South. Originally established as a “Teacher’s College” in 1922, this university had grown into a very successful institution of higher education. Ranked by *U.S. News and World Report* as the 22nd best school in the South among both private and public institutions for 20 consecutive years; this university had a number of very reputable programs in the

departments of Occupational Safety and Health, Business, Music, and Education (Muscio, 2009-2010). At the time of the study, the university offered two certificate programs, eight associate degrees, 64 bachelor's degrees, and 38 master's degrees. (Muscio). Tuition for in-state residents was \$3,132 per semester for undergraduates and \$3,564 for graduate students (Muscio). Non-resident tuition was \$8,520 per semester for undergraduate students and \$10,035 for graduate students (Muscio). Regional, discounted tuition is offered for students living in border counties in neighboring states. Freshman and sophomore students who could not claim county residency were required to live on campus and purchase one of the several meal plan options. Within the past five years, two new residence halls had been constructed offering suites for up to four roommates. All residence halls except one (nine total) were co-ed, and only two remained with communal bathrooms.

This institution was a regional campus, meaning that a large number of students return home on Thursday for the entire weekend and might not return to campus until Sunday or Monday. According to the university Fact Book (Muscio, 2010-2011), for the academic year 2010-11, student population demographics were as follows:

- 81% undergraduate.
- 1,390 new freshmen and 1,991 first-time students (new students, new transfers at all levels) on campus.
- 32% of students were 24 or older.
- 75% of students were full time.
- 88% were Caucasian, 7% African-American and 5% other minority.
- 85% of students are in-state residents and.

- 60% of students are female.

The town itself was very much a university-centered community. Residents were strong supporters of both academic and athletic programs, regardless of whether or not they were alumni. A city and a county public school system were heavily involved in campus activities. Members within the community were predominately Caucasian with very little minority representation from either African-Americans or Hispanics. It was also a Bible-belt community with very strong Church of Christ and Baptist influence, such that the sale of alcohol was limited by a city regulation that stipulated alcohol could only be served in restaurants with a seating capacity of 100 or more and 70% of the restaurant's revenues had to come from food sales. Alcohol sales ended at midnight Monday through Saturday and were prohibited on Sunday (KRS.242.185(6)).

This institution also had adopted a long standing tradition among the Ivy League schools referred to as the "Residential College System." The purpose of the Residential College system (very similar to the University College Model) was to offer a connection for every student. All students (on-campus, off-campus, non-traditional, etc.) were assigned to a Residential College and encouraged to participate in events such as intramural sports, picnics, community fund-raisers, and structured programs. Each Residential College was directed by a faculty member, or "College Head" whose role was similar to the "dorm mother" of earlier college generations. This College Head was very involved with programming and responsible for establishing and maintaining relationships with both residents and commuters.

Data Collection Methods

In-Depth Individual Interviews

Individual in-depth interviews essentially describe the interaction that took place between an interviewer and a respondent through use of specific questions (Babbie, 1998). Seidman (1998, p. 4) stated that “interviewing provides access to the content of people’s behavior, and thereby provides a way for researchers to understand the meaning of that behavior.” Upon receiving primary approval from Human Subjects at SIUC, as well as a secondary approval by Human Subjects from the university under study (Appendix A), each of the pre-determined university personnel were contacted by phone to elicit their participation in a personal interview to take place in their office, lasting no longer than 30 minutes. The pre-determined interviewees were selected based upon their roles and responsibilities to the university under study, which due to their specific nature, required them to work closely with a large majority of the students both on and off campus. I interviewed 11 staff members within the Department of Student Affairs (the Vice President of Student Affairs, the Manager of the Wellness Center, Director of Resident Halls, Associate Director of Dining Services, Director of Student Support/Disabilities Services, Health Educator/Staff Nurse from Health Services, the Director of First-Year Experience and Counselor (in the Counseling and Testing Center), the Provost, the President, the Captain of Public Safety, and one Associate Athletic Director. Each of these individuals was directly associated with health-related programs, services, and supports at the university under study. An organizational chart is listed in Appendix K.

Those who agreed to participated in this study were mailed (via campus mail) a packet of materials including relevant definitions pertaining to the study (Appendix B), as well as the Institute of Medicine’s “Examples of Skills Needed for Health Literacy” (Appendix C) in addition to the National Health Education Standards (Appendix D). Each individual involved in the interview process signed a consent form (Appendix E) authorizing permission to be audio recorded throughout the entire interview.

Questions used for the in-depth interviews were developed by the researcher and submitted to an expert panel at another university for review. This panel included the Associate Vice Chancellor of Student Affairs, the Director of the Wellness Center, and the Associate Director of Student Health Services.

Upon the conclusion of each interview, I reviewed all transcripts to check for any missing information. During the interview, I bracketed and made notes about all conditions of the interview to capture the general feel of the interview and the ease with which the information was shared. Bracketing is a process used to remove the researcher’s bias from the study. Munhall (1994) described bracketing in the following way: “putting aside our own beliefs for a period of time so that we can ‘hear’ and ‘see’ as undisturbed as possible by our own knowing” (p.26).

For the purpose of this case study, interviews were conducted with the following personnel:

- Director of Housing/Residence Life who supervised a large full-time staff responsible for daily operations and maintenance of 10 residential facilities on campus;

- Director of Dining Services, who was in charge of all meal planning and dining services, including the two main cafeterias and various other eating locations on campus;
- Director of Health Services, who oversaw the on-campus clinic, which is a service provided for all students who pay the student fee in their tuition;
- The First Year Experience Coordinator, who also served as one of the on-campus mental health professionals in the Counseling and Testing Center;
- A representative from the Provost Office, who could address course requirements/curriculum decisions for undergraduates;
- The Vice President of Student Affairs, who addressed the current undergraduate climate as well as various ideas about ongoing programming effectiveness;
- The Police Captain of Public Safety, who discussed campus climate and safety in regards to assaults, weapons, and violence and;
- The Academic Advisor for Intercollegiate Sports, who discussed the current needs of the 350 of student athletes;
- The Director of Disability Services, who worked with all students who had a documented need for extra services (i.e. a reader, extended time on tests, or a tutor);
- The Manager of the Student Recreation and Wellness Center, who oversaw the daily operations of the wellness facility, which offered a wide variety of opportunities for physical activity;
- Campus Ministers who represented a conglomeration of Christian Student Organizations and;

- The President of the University.

The interview questions are listed in Table 3.

Student Focus Groups

Five focus group interviews are used as means of collecting information from a group with similar attributes with regards to a particular subject matter (Dignan, 1995). Focus groups often are used as a method to collect a large amount of evaluation data quickly (Dignan, 1995). During the focus group interviews, I facilitated an open-ended discussion in which participants were asked to interact freely.

Research participants included undergraduate students in selected Fall 2011 courses. To recruit participants for my focus groups, I distributed flyers (Appendix L) among fellow faculty members in various departments across campus including Music, Freshman Orientation, History, Education (i.e. Physical Education, Special Education, and all levels of Teacher Education), Exercise Science, Consumer Science, Math, and Speech Language Pathology. Focus groups were held during the early morning class time (8 AM) or during the lunch hour (11-12:30). As an incentive to participate in these focus groups, either a light breakfast (donuts or biscuits), or a pizza lunch was provided to participants.

Table 3

Questions for In-Depth Interviews

1. Describe what you believe to be the connection between health and student success?
 2. Based upon your experiences, what do you perceive are the health-related needs and concerns of today's college undergraduate students?
 3. What health-related programs, supports and services are currently in place for students in your department?
 4. Health literacy has been identified as one of the 21st Century Skills. Please look at the skill set that the IOM recognized as important to health literacy, and share which of these skills, if any, are addressed by programs in your department?
 5. Describe how your department addresses any of the six dimensions of health/wellness?
 6. Describe your perception of the quality of the existing programs. Have these programs produced tangible benefits?
 7. What do you see as the strengths and challenges of your program?
 8. If budget were not an issue, what changes could you make in your program to better address the health-related needs of students?
-

I asked each faculty member to read the flyer to their classes as soon as they were received, which was approximately a week before the first scheduled focus group. I also asked if they would hold onto the flyer and then remind students again

about the focus group after a couple of weeks to spark any interest for any of the later sessions. I asked each faculty member to provide an approximate number of expected attendees, allowing me to adequately plan food quantities.

Students who volunteered to participate were given an informed consent form to sign agreeing to their participation (Appendix F). The emphasis of these focus groups was to determine the level of awareness and utilization of programs among the university students, to identify their specific health needs and concerns, and to determine if the health-related programs, services, and supports were adequately meeting these health-related needs.

Campus Ministries Focus Groups

In addition to the student focus groups, one focus group was conducted with Campus Ministries. The Campus Ministers are a conglomeration of ministers representing various Christian faiths within the community. They met consistently on the first Thursday of each month during the semester in the Student Center. I contacted the current President of Campus Ministries via email and explained the purpose of the study and requested the opportunity to come to a meeting to ask about how they collectively perceived themselves as meeting the health-related needs of students. The Campus Ministries focus group questions are included in Table 5.

Table 4

Questions for Student Focus Groups

When we (health professionals) talk about health, there are six dimensions that actually incorporate 'total health and wellness' – those dimensions include spiritual, physical, mental/emotional, social, environmental, and intellectual

1. When you think about health, what are you most concerned about?
2. Describe how health has an impact on academic achievement?
3. What types of programs, services, and supports are you aware of that are available to you on this campus in regards to each area of health and wellness?
4. How do these programs assist you or anyone that you know (friends/other students) in each of these areas?
5. Which of these services (if any) have you personally utilized and what was your experience (i.e., friendly, helpful, provided support, assisted in making the college experience more beneficial, will utilize again/recommend to someone else, not good at all)?
6. What types of health-related programs do you believe the university should provide and why?

*prompts – Wellness Center, Women's Center, Counseling and Testing, SSLD, Dining Services, Housing, Advising

Table 5

Questions for Campus Ministries

When we (health professionals) talk about health, there are six dimensions that actually incorporate ‘total health and wellness’ – those dimensions include spiritual, physical, mental/emotional, social, environmental, and intellectual.

1. How do your programs and services address any of these six dimensions?
 2. Describe what you see as the connection between health and student success?
 3. Based upon your experiences, what do you perceive are the health-related needs and concerns of today’s college undergraduate students?
 4. Describe your perception of the quality of the existing programs. Have these programs produced tangible benefits?
 5. Describe what you see as the strengths and challenges of your program?
 6. If budget were not an issue, what changes could you make in your program to better address the health needs of students?
-

Document Analysis

Document analysis/program records serve dual purposes. Patton (1908) states: “First, they are a basic source of information about program activities and process and second, they can give the evaluator ideas about important questions to pursue through more direct observations and interviewing” (p.152).

Dignan (1995) states:

These documents contain important information which can be used by the qualitative evaluator, including the program's philosophy, rationale, and overall strategies. Such documents also include problem statements, goals, and objectives, intended target audiences, and descriptions of program interventions, and information about funding levels and staffing patterns. Documents reveal the history of a program, what it initially set out to accomplish, why certain decisions were made, what changes were made and why, and what the intended program processes and outcomes were at various stages of the program (p.149).

For this study, materials under review included the 2010-11 Undergraduate Bulletin, documents available to the public from Housing, The Wellness Center, Student Affairs, Dining Services, Athletics, the Provost, the President, Office of Student Disability Services, The First Year Experience/Counseling and Testing Center, Health Services, and Public Safety. Additionally, the website content (hours of availability, emergency contact information, applicable service fees, etc.). Mission statements and policies from each of the previously listed departments were reviewed. All materials were analyzed and coded for content related to health literacy skills and/or the six dimensions of health (Appendices H & I).

Data Analysis

All interviews were transcribed word for word by a professional transcriptionist. Once the transcription was returned to the interviewer, it was reviewed for any missing information and then returned to the interviewee to be reviewed for accuracy. After the interviews were determined to be complete and accurate, content analysis was used to review the transcripts of the individual interview and focus group interviews. Babbie

(1998) stated that content analysis can be used to study human communications and other aspects of social behavior. Content analysis is also a technique for making inferences from data collected through communication (Krippendorff, 1980). After all transcripts were reviewed, they were copied in sets of three on colored paper--each color represented a personal interview. Coding involved identifying statements that related to any of the six dimensions of health or in relationship to the IOM skill set or the National Health Education Standards (NHES) and grouping those similar statements into themes to establish representation of a descriptive analysis of the case study. With this technique, all transcripts were reviewed and examined for reoccurring themes and/or content categories which aided in the interpretation of the data. Specific to this study, reoccurring themes and/or content categories included health-related concerns of the students; connection between the six dimensions of health to the programs, services and supports offered by the individual departments; extent to which students are aware of these programs, services, and supports; and perceived effectiveness of programs, services, and supports from both the student affairs departments and the students.

Stake (1995) recommended data analysis be broken down into categories in which the researcher gains a sense of issue-relevant meanings from repeated instances in the data collection. Stake's (1995) category included direct interpretation in which the researcher can draw meaning from a single instance (i.e. a personal interview). Oftentimes, a table is constructed to show the relationship between the two categories. In this case, a matrix was used to identify implementation of the six dimensions of health and wellness (Appendix J) or the skill set for health literacy from

the Joint Commission on National Health Education Standards (Appendix J) among the programs, services, or supports under study.

For the focus groups, a similar process was used in which transcripts were coded based on students' perceptions of the programs, services, and supports related to the six dimensions of health.

Triangulation

Triangulation involves cross-checking multiple sources of information to determine an understanding of the purpose of the particular area under study (i.e., review of printed materials, such as flyers, brochures, websites, etc.). Specifically, documents under review for this study served to support or refute attitudes and perceptions of the administrators who were interviewed and the students in the focus groups (i.e., did the printed material from each specific department match the actual delivery of the program, service, or support under study; and had the students been made aware of, or had access to these documents at any point during their college career, thus far).

Trustworthiness

Trustworthiness signifies that the research is credible (Lincoln & Guba, 1985). To establish this, Lincoln and Guba (1985) recommended the following four components necessary to qualitative research: credibility, transferability, dependability, and confirmability.

Credibility

According to Issac and Michael (1997), credibility strived for development or research findings that are believable from the perspective of the participants involved in the study. Credibility shows confidence in the truth of the findings and is most often arrived upon through use of member-checking and triangulation. Member-checking can be two-fold. First, it involves asking those who have participated in the case study interviews to review the transcripts of the interview for accuracy. Second, it serves to verify any emerging theories or inferences developed by the researcher during the interview (Shanton, 2004). For this case study, due to the delay of the interview transcription and the time constrains for completion of the study, interviewees did not review transcripts. However, when I reviewed the color-coded transcripts, I cut out phrases or paragraphs and categorized them into folders which reflected any of the six dimensions of health/wellness, or the skill set for health literacy.

Transferability

The purpose of transferability is to make the research findings helpful to other researchers conducting a similar study. Transferability indicated that the findings in this particular study could be applied in other studies. In this case study, I made recommendations that further research be conducted at other universities as a method of assessing health literacy among college students nationwide. As college students come to post-secondary institutions engaging in high-risk taking behaviors which can impeded academic success, it seems logical to determine to what extent health-related programs, services, and support can be effective at raising awareness about, and attempting to correct behaviors associated with long-term health consequences.

Dependability

Dependability is the paradoxical version of the quantitative study's reliability (Krefting, 1991). In qualitative studies, the techniques employed ensure that if the same work was repeated in the same context, with the same methods and same participants, the same results could be obtained (Shanton, 2004). Study methods should be precisely detailed for easy replication. Lincoln and Guba (1985), suggested dependability is gained through the use of "overlapping methods" such as individual interviews and focus groups. In this case study my doctoral advisor audited my coded data from both the personal interviews and the focus groups and confirmed my analysis to be consistent, demonstrating dependability of research data and interrater reliability.

Confirmability

Confirmability referred to the extent to which the researcher could remain unbiased both while conducting the study and reporting the results. According to Shanton (2004); "steps must be taken to help ensure as far as possible that the work's findings are the result of the experiences and ideas of the informants, rather than the characteristics and preferences of the researcher" (p.72). Shanton (2004) suggested the use of a data-oriented approach in which the researcher shows how, during the data analysis process, information collected from the interviews and focus groups leads to the formation of recommendations. For this case study, I utilized the matrices (Appendix J) and the Document Analysis form (Appendix I) to identify how each representative involved in the personal interview implemented any of the six dimensions of health/wellness and to the National Health Education Standards.

Summary

The research method for this study was a case study approach using in-depth individual interviews, focus groups, and document analysis. All research was conducted at a mid-size public university in the South. A letter approving the research study was obtained by the university prior to any data collection. Analysis of the case study serves to help answer the research questions as well as develop suggestions for further studies.

CHAPTER 4

RESULTS OF THE STUDY

This chapter presents the study findings, including a description of the case under study; the case study record; existing health-related programs, services and supports; perceptions about the quality of programs, services, and supports as reported by campus administrators; tangible benefits provided by existing health-related programs, services and supports; health-related needs of students; and students' knowledge and perception of quality of programs, services, and supports offered at the university under study. Finally, a summary of the chapter is provided.

Purpose of the Study

The primary purpose of this case study was to determine if the university under study had adequate and appropriate health-related programs, services, and supports in place to develop health-literate young adults. A secondary purpose was to identify strengths and gaps in these university health-related programs, services, and supports, which, if addressed, could increase the likelihood that college graduates would be health literate.

Description of the Case

A case study is comprised of the case study record and a description of emergent themes. The case study approach is useful in illustrating a problem, suggesting means for solving the identified problem, and determining areas for further research (Creswell, 1998). The basis of this case study was to determine the

perception of the quality of existing programs, services, and supports from both the viewpoint of on-campus students and the directors of each related department. Data were collected through individual interviews from professional staff, student focus group interviews, and document analysis (including, but not limited to, university web pages, brochures, and course catalogs) available from each program, service, or support.

Case Study Record

This research study served to answer three broad research questions: 1) What are the health-related needs and concerns among selected university undergraduates? 2) What is the level of awareness and utilization of these health-related programs, services, and supports by university undergraduate students? 3) What are the strengths and gaps among identified health-related programs, services, and supports? The following section summarizes the study findings.

Upon arrival, I asked each department representative if he/she had taken any time to review the information packet sent earlier and wanted to ask any questions. In every instance, the response was “No”. As a result, for approximately 10 minutes prior to the actual recording, I debriefed each person on the purpose of the study as well as provided a basic description of all terms and standards related to health literacy until each person agreed that he/she understood what I would be asking him/her and why.

Because I have personally known and worked with every interviewee for a minimum of four years, interviews were very candid and smooth. At the conclusion of each interview, I told each person that I would get back to him/her with a copy of the

transcript for his/her approval as quickly as possible, taking into consideration the time constraints associated with the end of the fall semester and the holiday season.

As it turned out, my hired transcriptionist continued to tell me that she was making progress and would get the transcripts to me as soon as possible. We had a face-to-face meeting in early January in which she said she would finalize all transcriptions and email them to me no later than January 15. Unbeknownst to me, her husband had accepted a job in another state, and she moved the week after she made this arrangement. After several attempts to contact her, she finally explained that all my transcripts were on the computer she used at her previous job and were password protected. When her previous co-workers attempted to retrieve my transcriptions, it was discovered that she had only, in fact, transcribed nine partial interviews.

Because time was extremely crucial at this point, I had to find another person to transcribe all of my interviews as quickly as possible. I then communicated my dilemma to all who had been interviewed.

Everyone understood, stating that they were not concerned about anything being changed primarily because they knew me personally, had worked, or currently worked with me, and trusted me. Most acknowledged that they were simply too busy with work responsibilities (the university is under accreditation review). One had taken an extended leave of absence for family health reasons and one was traveling extensively with athletic teams.

I facilitated six focus groups. Five were comprised of undergraduate students and one with the Campus Ministers. Students who participated in the focus groups

(n=76) included thirteen freshman, six sophomores (all females), 22 juniors, and 35 seniors (32 females and three males).

While student participants were predominately junior and senior females, they proved to be the most significant source of information and the most willing to share, represented both on and off campus students, and were heavily involved in various student organizations. In addition, these upperclass students had spent more time on campus, which is relevant to determining their level of awareness and involvement in existing programs, services, and supports available.

Campus Environment

Southerners take pride in their reputation for friendliness, and the university under study is no exception. The atmosphere on campus is very welcoming and friendly. Students, faculty, and staff are very proud of their institution, and school pride is evident across the campus. Almost all of the high rise buildings display very large, colorful banners with photographs of the school mascot and current students. These banners promote the university's logo. Students look happy and engaged in activities or with one another.

The grounds on campus are very well maintained – flower beds are in front of every building on campus and are rotated seasonally with mums, pansies, or buttercups. The main section of the academic campus (referred to as the quad) is a large area of flowering crab apple and oak trees amidst an open green space approximately the size of a football field. It is often a gathering place for campus events and students are commonly seen relaxing on blankets while eating or studying.

Benches are located all along the main pedestrian walkways and in front of all residence halls, libraries, student center, and academic buildings. Many of these benches are located under trees offering both a pleasant breeze and shade on a sunny day.

It is not uncommon for large groups of students to congregate in the main pedestrian walkway near the student center, especially around the noon hour as students are coming and going from the most popular eating area located in the student center. Most every week during the warmer months of the fall and spring semester, student organizations will barbeque in these highly-populated areas for fund-raising events.

Walking through the middle of campus during the day is most definitely 'the place' to be. It almost reminds me of speed dating, quick, friendly interactions between lots of people moving either together or stopping for just a brief minute to discuss current events or plans. There always seems to be an element of excitement or anticipation about who might be encountered that day on the walk to class.

The main campus perimeter is enclosed by a sidewalk that is affectionately called "The 2.2" as it is approximately a 2 mile loop that is always full of walkers, runners, moms with strollers, dog walkers, and bicyclers. This loop also is surrounded by the four major roads in town, running East/West and North/South, so traffic is always steady around the campus.

Within the last year, the city has received a significant amount of grant money to build sidewalks alongside two of the narrow, but heavily traveled roads leading to campus. These sidewalks have provided a significant increase in the number of

walkers and bike riders to campus as well as promoting physical activity and reducing the parking frustration on campus.

As mentioned previously, the campus is contained and is essentially the center point of the community. All buildings that have been constructed or remodeled within the past 15 years have identical architecture consisting of red brick, plentiful windows and the 'signature "Copulas" on top (all construction/remodel which took place during the tenure of two consecutive Presidents). Every building on campus is identified with an identical white sign posting the name of the building in royal blue lettering.

While the library was not originally included as part of the study, to my surprise, it was consistently referenced by student participants in the focus group. I was unaware of the significant role the library played for social interactions and information gathering. After the conclusion of the focus groups, I revisited it to gain a better understanding of why it is so popular.

The student library is a three-story building in the middle of campus and is easily accessible from any of the academic buildings. All along the front, is a wide, brick breezeway lined with benches and picnic tables. This area is a very popular gathering point, or a nice place to pass time in between classes. Upon entering the library, the main floor displays a large area of approximately 50 computer stations where students can access the Internet for academic or social purposes. There is an area to the left of the entrance in which students can purchase a variety of snack foods, drinks, and coffee. Also located in the center of the main floor are couches and round tables in which students can relax with friends or hold a study group.

The basement and third floor has the look and feel of a more traditional 'stacks' library. While the third floor is the designated quiet floor and often less occupied, the basement is usually always full of students either alone, or in groups particularly because of the rocking chairs that are available. All three floors have a vast amount of window space offering students the choice of either sitting in natural light or moving away to a more enclosed area for true isolation.

Health-Related Needs of Students

In each student focus group, I made participants aware of the spectrum of total health and wellness by explaining the six dimensional model of health: spiritual, physical, mental/emotional, interpersonal, intellectual, and environmental. The first research question was "When you think of health, what concerns you the most?" For the most part, student responses were related to the physical and intellectual aspects in two forms; physical activity, or the inability to perform academically due to a physical illness. Statements included;

- I know it's important for me to stay healthy because then I won't miss class, because if I don't feel good, I won't go to class and then I get behind and don't do well on a test.
- I'd be willing to bet that a lot of us [in this room], were way more physically active in high school and now, we just don't have time to exercise. I know I should because I feel better and looked better, but I just can't right now, I have too much going on.

After further prompting, some students mentioned how stress played a role in regards to their academic load, the pressure to be successful, finances, and time management skills, resulting in negative behaviors, such as lack of sleep, physical inactivity, and poor nutritional choices. Some examples included;

- I'm always grabbing food on the run because my schedule is so crazy...I'm always staying up late and I never get enough sleep, but in this major, you just have to do what you have to do.
- I wasn't very good at making the adjustment to so much freedom (like only having Tuesday/Thursday classes), so I didn't really figure out how to balance my school work with my free time and my grades my first year were terrible and then my parents were pissed [*sic*] because I used to be a good student.

For the most part, very little, if any connections were made between "health" and the environmental, interpersonal, or spiritual dimensions. A few comments were made about the temperature in various buildings and fire drills in the residential colleges as an 'environmental' issue, and a couple of students identified the various religious student organizations, but not as identified with any health-related need. Some students did identify the need for maintaining interpersonal health;

- If you don't make the effort to be involved in something, (your classes, fraternities/sororities, whatever) or make friends, you'll just end up lonely and alone. So you've got to make the attempt to have a social life; that's what college is all about.

Overall, while students may have not fully articulated a full range of their own perception of needs, according to data listed in the university under study's *Fact*

Book (Muscio, 2011) from the previous academic year, there were 6,979 visits to Health Services including 5,693 laboratory tests, and the Counseling and Testing Center provided individual counseling to 1,527 students.

Furthermore, students who had been on campus for more than two years, and utilized Health Services for the free OB/GYN appointment were significantly impacted, and as a result may not have continued to obtain annual checkups or birth control pills. The loss of these services has a direct impact on unintended pregnancies, awareness of female cancers and early detection, and STD prevention/awareness.

Awareness and Utilization of the Available Programs, Services and Supports Among Students

Five student focus groups were conducted to better understand the level of awareness and attitudes towards health-related programs, services, and supports at the campus under study. Not surprising, students were largely aware of and enthusiastic about the Student Recreation and Wellness Center. In addition to the workout equipment and classes, this facility also included the Intramural and Sport Club office. As the former Intramural Coordinator for 13 years, I know that, on average, 3500 students participate in the five intramural sports offered each year. Responses from the student focus groups, coupled with the numbers of student participation in intramural activities, suggested a positive perception of recreational activities.

Upon transcript review, feedback indicated a close second in usability and positive perceptions for the library. It should be noted that the library staff was not included in the original study list of interviewees because, at the time, I was not aware that the students' perception of the library was so high.

Following lengthy discussions about the Recreation center, intramural program, and library, which was all extremely positive, there was only a slight awareness of the OSDS (i.e. sounded familiar, but really didn't know what it was about), very little about the Counseling/Testing (except for those few students who had taken the FYE course), and mixed feelings about Housing, Dining, Public Safety, and Health Services. The following statements were made about the various programs. Perceptions about dining services included

- It's like the same thing week after week; that's ok in the beginning of the semester, but by the end, you don't even want to go in because everything tastes the same. I will say that they do have grilled chicken, and at least that's not fried [like most of the rest of the stuff] but you can only eat grilled chicken so many days in a row. You can always get hamburgers, fries, pizza – you know the usual 'college student food.' They do have vegetables, but they don't look fresh, and there are bananas and apples, but that's about all [*sic*].
- When you're a freshman or sophomore and limited as to what meal plans you can buy, then you can only eat in certain places, so you don't have options.
- The cereal is always safe though.

Perceptions of the Residential Colleges primarily revolved around the temperature and noise (which involves the environmental aspect of health). The temperature complaint however, wasn't just limited to the Residential Colleges.

- WHO REGULATES THE TEMPERATURE ON THIS CAMPUS?

Sometimes, I have to wear layers to my classes even when it's warm because the buildings are so cold. I'm trying to listen to the teacher, and all I can think about is that my hands are too cold to take notes, and I just want to get outside to thaw out! *Yeah, there's your environmental interference with academic learning* [emphasis added]!

- In the Residential Colleges though, they may say it's a "quiet floor," but there's really no such thing – it's noisy all the time, you just learn to get used to it, or you're a part of it [laughs]. Then you end up staying up all night, and don't get any sleep, and then don't want to get up and go to class the next day.
- That's why I got out and moved off campus as soon as I could. I couldn't take the noise all the time up there. At least in my apartment, we can go into our own rooms and have some peace; and it's not like 'crazy' all the time [sic].

With regards to Public Safety, other than mostly negative complaints about parking,

one student was especially positive about her experience;

- From an RA standpoint, they are incredible, like I had to call them and they are just on it, they are there....but I had an issue in my apartment [off-

campus] and had to call the police [city], and they took 25 minutes to get there, and the officer called me 20 minutes after he left and said 'did you want me to talk to you?' And I said 'No, I just wanted to let you know that it's a good thing I wasn't dead, because it took you 25 minutes to get here.'" Somehow, Public Safety heard about it first and they were on it, like immediately and it wasn't even their deal [off-campus], but they took care of it anyway [sic]. They are very good on campus.

Student feedback about Health Services was surprisingly, not very positive. Students seemed to form their own opinions, either from personal experiences or from 'people they know.'

- I had a new girl in my dorm, and she was pregnant, and she went there and it was like you have gas...please, it's a baby, not gas [sic]! And she went in four different times, and they said she was fine, and then she went in and they were like, you have miscarried, oops. And it was like our bad..what [sic]? NO [emphasis added]!
- It's pretty frustrating to go in there and have somebody look at you and say nothing wrong with you, but then you go down the street to [local walk-in clinic] and here is your prescription, you will feel better [sic].
- I have a friend who went in for a tick bite and it was infected, and she went in there and they were like we can't do anything for you, you need to go to a doctor, and they kept her in there for like 30 minutes and gave her the sex speech and wanted to give her a bag of condoms [sic]. They don't

care about anything else, you could be coughing your head off and they think you have an STD and want to give you 30 condoms; it is insane!

- My freshman year, my RA told us about the OB/GYN service that they had and my roommate and I used to go, but now we can't and she doesn't have insurance [*sic*]. She went to [local walk in clinic] a year ago and she's still paying on it. That was a good service and they need to figure out how to get it back.

It is unfortunate that Health Services had such a negative perception among students. However, I believe that they are significantly hindered by their budget, limited staff, hours of availability and advertisement of services.

Strengths and Gaps in Existing Health-Related Programs, Services, and Supports

For each program, service, or support involved in this case study, I first reviewed their departmental website and other documents available to the public. I also reviewed any additional items that were given to me during the interview which included information packets distributed to students and parents at Summer Orientations, campus organizational fairs, individual programs presented to student organizations (i.e. sorority/fraternity meetings), or resident hall meetings.

Bogdan and Biklen define qualitative data analysis as “working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” (1982, p.145). According to Patton (1990), qualitative researchers look for the emerging themes from the induction of data analysis. Hoepf (1997) further adds

“qualitative analysis requires some creativity, for the challenge is to place the raw data into logical, meaningful categories; to examine them in a holistic fashion; and to find a way to communicate this interpretation to others” (p.6).

For each health-related program, service, or support, I observed aspects of the building and surrounding environment prior to each personal interview. According to Savage (2000), observations provide key benefits which include; an in depth and rich understanding of a phenomenon, situation and/or setting and the behavior of the participants in that setting, an essential part of gaining an understanding of naturalistic settings and its members' ways of seeing, and the foundation for theory and hypothesis development.

Kvale (1996), explained the purpose of interviewing in qualitative research as “trying to understand something from the subjects point of view and to uncover the meaning of their experiences....Interviews allow people to convey to others a situation from their own perspective in their own words....Research interviews are based on conversations of everyday life” (p.4).

Eleven programs, services, and supports were identified as having the strongest connection with the six dimensions of health. Personal interviews were conducted with a representative of each of these offices to determine how they addressed any of these six dimensions and/or any of the IOM's skills for health literacy.

Analysis of my observations of the department facilities, transcripts of my in-depth interviews with key individuals from each department, and key documents have been integrated in the following section.

The third research question served to identify programs, services, and supports on campus as well as to determine the strengths and gaps among them. While some programs, services, and supports addressed at least two dimensions associated with health and wellness, some clearly provided more than others. In addition, some offices were, in fact, also addressing the IOM's skills for health literacy.

As a previous employee of Student Affairs for 13 years, I had first-hand knowledge that the programs, services, and supports were in fact in place. However, as anticipated, I found significant weaknesses in how effective these programs were at reaching their target audience. Most limitations were directly related to budget constraints. However, other than Athletics, there was no movement towards aggressively marketing most health-related programs, services, and supports.

Most methods of advertisement utilized by the programs, services, and supports involved in this case study were conducted via Summer Orientations (which from my personal involvement, provided an overload of information, and most students didn't seem to pay much attention because they thought they didn't need the information), brochures, web-pages, small sections in the student handbook, and the minimally attended mandatory floor meetings conducted by the Resident Advisors (RAs) in the residence halls.

Academic Affairs/The Provost Office.

This office is a very visually appealing office, decorated with plush carpeting, modern furniture and accessories, and color schemes are that very warm and welcoming. My interview took place in the Provost's Office, which was large, very tastefully decorated with several large windows. We sat at a large conference size

table with plenty of room. Probably the most noteworthy comment from this case study came from the Provost.

I don't think we've ever deliberately targeted commuter students...And, even when you think of our regional campuses or extended campuses, we say for accreditation that students [at those locations] have the same, or access to the same services, and technically, they do, if they want to come here [main campus]. But we don't have health services or counselors at those extended campuses.

We discussed the omission of the HEA 191 (Personal Health) course as one of the core curriculum requirements, and I was told that the course was dropped because academic programs (i.e. majors) were trying to reduce the number of hours for graduation. When I asked how complicated it would be to reinstate, I was told that it would probably take a long time [years] because it would have to be approved by all the academic colleges. Essentially, while The Provost agreed that the HEA 191 requirement could in fact be a very beneficial course for our students (because it addresses all six dimensions of health/wellness, engagement in physical activity, and provides the opportunity for representatives from various departments to be 'guest speakers' in class, therefore increasing awareness of programs, services, and supports), the tone of the conversation was not very encouraging.

The Provost web-page (<http://www.murraystate.edu/headermenu/administration/Provost.aspx>) is very basic; it lists the roles and responsibilities of the Provost and Vice President for Academic Affairs, National Rankings, basic school information (i.e. enrollment, geographic location school colors, nickname, etc.), most popular academic undergraduate fields,

sources of financial funds, and the demographics of the student body, faculty, and staff.

A significant gap related to effective communication existed with students who lived off-campus and coincidentally, represented a larger portion of the student body. Focus group participants stated that they would like to know about the services and suggested ways in which communication would be more effective (i.e. text messages, elevator postings, large outdoor display boards, bathroom stall doors, commercials on the big screen at basketball games, and presentations in class). Most students stated that they were inundated with emails and didn't read them. The method of communication was then rendered useless as it was not effective in reaching the intended target.

Athletic Department

The Athletic Department is located in what is referred to as "the backside" of campus, behind all the residential colleges. A large multi-purpose green space separates the Wellness Center, football stadium and basketball arena which configure into a triangular pattern. The back side of the stadium is the main point of entrance. Varsity intercollegiate sports offices and coaches are housed in this location. All of these offices are located just below a large set of concrete steps that gives the look and feel of entering a cement dungeon.

The main office is an unusual configuration of chopped up smaller offices in a maize-like layout which follows no logical structure or format. I can only image what a recruit must think when he/she walks in and sees nothing but plain white cinderblock walls and not a single visible person upon entrance. About the only thing that gives this

office any flair is the various print media promotional posters for the current sport scattered about on the walls. Unless you know where you are going and who you are looking for, it is almost scary. Athletics is unequivocally the most unusual, unorthodox department on campus. Football, which is located in the basement just below, is a totally different story, as it is pretty much its own entity.

The Senior Associate Athletic Director, who I interviewed, has a small inner-office within a shared space with the Athletic Department's Compliance Office. While his office is small, it is tidy and efficient and decorated with artwork from his two children. Since this person meets individually with every student athlete at some point (there are currently 350), it is clear that steps have been taken to make the office comfortable and relaxed. Soft lights have been mounted just beneath the overhead storage files, and there is a large amount of various team memorabilia, giving it an interesting, yet familiar feel to any person involved in sports.

Just prior to, and immediately following my interview, the office was visited by several athletes needing to 'check in' as the semester draws to a close. The communication between student athlete and advisor is very parental; caring and nurturing, but firm in making sure the student athletes understand their responsibilities in regards to class scheduling.

Surprisingly, from my interview, I found the Athletic Department fully incorporated all six dimensions of health/wellness, either as a collective department, or among the individual teams. Intellectually, the Athletic department was very dedicated to student success which was evidenced by the impressive student academic center.

This center was donor-funded and was a large facility with state-of-the-art technological equipment that is available to all athletes during the center's operating hours. It offered a large group study area, individual group study areas, and a large, central commons area equipped with approximately 30 computers, several printers, and copiers. In this truly impressive facility, student-athletes used computers to access the Internet for research and to complete class projects and papers. The center was staffed by two full-time professionals who served as academic liaisons to all 350 student-athletes. Additionally, the center was open and supervised from early in the morning until late at night to meet the student-athlete's scheduling needs. For the 2010-2011 academic year, 95 student athletes qualified for the conference Commissioner's Honor Roll (3.25 GPA or higher) (http://www.goracers.com/documents/2012/3/27/10-11_ComHR.pdf?id=767).

From an environmental aspect, one of the Assistant Trainers had a Master's Degree in Community Health and had gone to great lengths to identify sources that could impact student-athlete performance. Upon his hiring, he met with all on-campus custodial staff to identify ways in which to reduce allergens and the spread of disease in the residence halls. This action, in turn, resulted in a more suitable environment for all residents (i.e. non-athletes). Additionally, there was a firm 'DO NOT touch any treatment modalities or tables unless you've showered' policy, which reduced the spread of Methicillin-resistant Staphylococcus aureus (MRSA) as well as any other bacteria or virus.

Clearly, as athletes, physical activity was a huge part of remaining healthy and being capable of playing. However, several coaches had taken some positive

initiatives in other areas of physical health. The football coach always had food available in the locker room. Peanut butter, jelly and bread as well as a large variety of fruits and other health snacks were at any football player's disposal at any time; no one went hungry on his team. Gatorade also was significantly diluted to reduce the amount of unnecessary sugar, while still maintaining good hydration. Likewise, the women's basketball coach has implemented the idea of drinking protein shakes before practices, and instilled a curfew to ensure his women were getting enough sleep.

Finally, as part of the university's membership in the National Collegiate Athletic Association (NCAA), the athletic program was required to implement the Challenging, Athletes' Mind for Personal Success/Life Skills Program (CHAMPS). Introduced in 1994, this program was "created to support the student-athlete development initiatives of the NCAA member institutions and to enhance the quality of the student-athlete within the context of higher education" (NCAA, 2008).

The initiatives focused on five areas: academic excellence, athletic excellence, personal development, career development, and service. Specifically, personal development addresses nutrition, disordered eating prevention education, establishing relationships and developing sexual responsibility, developing self-esteem, stress management, alcohol choices and addictive behavior, dealing with depression and grief, interpersonal communications, media relations, personal and social development, manners and etiquette, dealing with authority, understanding and celebrating diversity, fiscal responsibility, and violence prevention (NCAA, 2008). One of the academic counselors on staff was responsible for student-athlete compliance within the CHAMPS/Life Skills Program.

The Athletic Departmental web-page (<http://www.murraystate.edu/campus/HealthServices.aspx>) was really a separate entity from the regular university page. By selecting the link to “Student Athletes,” the Mission Statement read as follows:

The Student-Athlete Services Department of [university under study] is committed to assisting all student-athletes in reaching their full potential, in and outside of the classroom. Student-Athlete Services staff work cooperatively with every possible department at [university under study] to assist student-athletes in the areas of class-scheduling, degree progress, tutorial programs, community service and career development. In doing so, student athletes build the necessary skills and tools to graduate, become leaders in the community, and lead productive lives after their career at [university under study] concludes.

Furthermore, on this page, were more specific examples of how the department assists student-athletes by offering a variety of academic guidance and services, to include counseling on the transition from high school to college, the availability of tutors and mentors, and information about their in-house academic enhancement center.

The Athletic Department proved to be the most successful department in regards to fulfilling all six dimensions of health/wellness and really incorporating aspects of the IOM’s health literacy skills. The CHAMPS/like skills course, measures to meet dietary/nutritional needs, recognition of the importance of sleep, measures to prevent the spread of disease among treatment modalities and the availability of hands-on academic services and supports were found to be very impressive. There were no identified gaps in this program

Campus Ministries

While not really a 'department.' Campus Ministries was represented by a conglomeration of representatives from various religions including Catholic, Presbyterian, Church of Christ, Baptist, Non-denominational, and Methodist who meet for one hour, each month during the academic year in the student center. Six of these religious organizations had facilities (houses, or buildings) either on campus or just adjacent to campus. As a result, there are approximately 1000 students involved in these organizations.

Campus Ministers met the first Thursday of every month to share their upcoming events and any student concerns. While the spectrum of faiths spanned from liberal to conservative, the collective working atmosphere was pleasant; clearly, student needs were placed first. As noted by one representative, "I think one of the things we try to do is create students who are balanced in every area across the board, that's who Jesus was...in all six dimensions that you named, Jesus nailed them...Hopefully, we teach them a lifestyle that they will carry with them, because we are looking at the whole picture."

There is no dedicated web-page for Campus Ministers, or available printed material for review.

Campus Ministries. The presence of student religious organizations was largely dominated by Baptist and Church of Christ, the strongest religions in the community. Because these two religions are so predominately represented within the community, they had a significantly greater source of resources for advertising and participatory events. For example, the Baptist Student Organization had a facility in the same area

as six of the eight residence halls, and the Church of Christ facility had an actual house (in which selected students may live) across the street from campus. Both of these organizations also were heavily involved in campus events, such as intramural participation and homecoming events. Additionally, one of the Baptist services was held in the student center every Sunday morning.

As a result, any student who was affiliated with Baptist or Church of Christ had a plethora of opportunities for involvement. The opportunities decreased, however, with the strength of community presence for each of the subsequent religious affiliations.

The identified gap in these programs, services, or supports was the exclusion of any group which chose a religious practice other than Christianity. With an increase in recruitment and retention of International students, those who chose to practice any other form of religion, such as Buddhism, Judaism, Islam, etc. were not welcome in this organization. In fact, I specifically asked the current chair of the Campus Minister's board to include a representative from the Muslim/Saudi Student Organization and was told that would not be allowed. As it turned out, in reviewing the Student Organization webpage for any other religious group contact, I was unable to find any active (non-Christian) organization for this academic year. I then concluded that, if students who might be affiliated with other religions are not organized enough to sustain a formal group, they were not practicing their religion on campus, were traveling home, or were traveling to another area community in which their religious practice was available.

Dining Services

Dining Services is located on the bottom floor of the student center. It is a large, very open, very friendly, office, brightly lit and very colorful. The staff exhibit lots of

school pride as displayed with school memorabilia, in addition to various personal interests such as family and celebrity pictures, which makes it very visually appealing. While Dining Services has a large staff, they are efficient in serving students and parents. Most of the staff have been working together for many years and, as a result, they are very familiar with each other's roles. Therefore, if a student were to come in and ask a question or have a concern, it is highly likely that anyone could help.

I learned from my personal interview with the Assistant Director about their efforts to really support environmental concerns as noted, "...we are very proud of the fact that we've made substantial efforts to incorporate sustainability through composting; purchasing local, fresh produce, whenever possible; growing our own herbs; recycling, and eliminating Styrofoam products."

Freshman and sophomore on-campus residents were required to purchase a meal plan and, as a result, they were limited to the main campus cafeteria, unless they fell within the two exceptions. If they lived in one of the two other residential colleges that were across the street from the main cafeteria and other six residential colleges, or if they have purchased "flex dollars" in addition to their meal plan, which allowed them to purchase a la carte items from other locations, such as the coffee shops, bookstore, student center, library, etc.

Dining Services' web-page (<http://www.murraystate.edu/dining.aspx>) incorporated a lot of information about services and opportunities for students to make healthy food choices. They included a caloric breakdown for 180 different food items among the different food venues on campus. Likewise, there was information specific to vegetarians/vegan dieters, nutritional needs specific to athletes, ways to maintain

healthy eating while in college, and information as to how students could visit the Dining Services office for personal consultations.

Another informative piece on the web-page was a blog entitled “The Painted Plate.” A few examples of blog entries include “The Freshman Fifteen,” “The Colors of Fall,” (how to incorporate more orange / beta carotene rich foods into your diet) “The Facts about Gluten,” and the association between stress and food.

Dining Services also had a multi-colored brochure that is primarily used at Summer Orientations and on-campus visits. This brochure included a breakdown of costs and usability for meal specific plans, as well as employment opportunities.

While I personally know that Dining Services works very hard to accommodate students’ wants and needs, it was clear that they unfortunately had an ‘image problem.’ The strength was that the staff was very dedicated and student-oriented. They had clearly worked hard to establish a well-developed and informative webpage that described the various dining locations, menu options, and nutritional content.

Because the freshman and sophomore on-campus students are required to purchase a meal plan and are most likely to be limited to the full range of Dining Services options, they are the ones most likely to complain. Unfortunately, these complaints turn into a ‘first impression’ regarding the availability/quality of food items. Upperclass students, and those who are allowed to eat in the student center dining location, were usually not as dissatisfied. Once students reached junior status, they were allowed to move off campus and were not required to purchase a meal plan. However, the damage had been done and the negative image was created, which

convinced those students that Dining Services did not and could not provide quality food items.

First Year Experience (FYE)/Counseling and Testing Center

I interviewed the Director of the FYE program, who is also a Licensed Counselor for the Counseling and Testing Center. The Counseling and Testing Center, Women's Center and FYE program's office was relocated a year ago from its original location in another one of the original campus buildings. The move was necessary as the previous building is so old and in such poor condition, that it is nearly to the point of being condemned. In that regard, its current location is merely a step up from where it was, decorated with outdated furniture and accessories. However, the Director's space, while narrow and dimly lit, is full of pictures and colorful knick knacks; soft music was playing in the background. I found it to be very welcoming and comfortable. The staff is friendly and very student oriented, and it feels very pleasant and "homey."

I found the personal interview from the Coordinator of the FYE/mental health counselor to be very disconcerting. He stated that by the time a student realized that he/she should probably seek help he/she had reached a breaking point mentally. He stated;

We get a lot of emotional stress, emotional psychological...
psychologically debilitating anxiety, because they are caught in situations where they feel overwhelmed by whatever is going on, whether it's environmental, interpersonal, or whatever it is...and an inability to deal with it. Health wise, that means that they haven't a skill set yet that has encountered enough of these kinds of situations to respond to it in a

health manner. When they do respond, it's almost always in an unhealthy manner, whether it's alcohol, drugs, staying up all night, etc; and if they scream loud enough, then some solution is going to happen, or somebody else is at fault for my problems.

The First Year Experience page

(<http://www.murraystate.edu/HeaderMenu/Administration/StudentAffairs/departments/CounselingAndTesting/firstyearexperience.aspx>) is neatly formatted and organized. It explained the purpose of the program and contact information. Conversely, the Counseling and Testing Center web-page,

(<http://www.murraystate.edu/HeaderMenu/Administration/StudentAffairs/departments/CounselingAndTesting.aspx>) within the same department, was extensive and very unpleasant to view. There was an overwhelming amount of information with too many choices. While this website served as one of the main services for students with mental health issues or students who might be in crisis, at first glance, it was very confusing due to the fact that it contained entirely too much information on one page.

There were links to personal counseling, group counseling, career counseling and national testing information (i.e. LSAT, ACT, Praxis, etc.). In addition, there were links to five mental health websites and a lot of wording about policies. After navigating through some of the links from the main page, there was a listing of "issues with which we can provide assistance," a link for veterans, and a link for the National Center for Post-Traumatic Stress Disorders. Coincidentally, upon clicking on all five of the mental health links, I only found two to be helpful resources of information related to college

students. As for the other three, one was password protected, one was more of a professional journal, and one was last updated in 2008.

Within the office, there were several printed materials available to anyone which included; informational brochures on mental health (how to identify a person in crisis/warning signs, how to respond, etc.), stress management techniques (relaxation, deep breathing, meditation, exercise, sleep, etc.), disordered eating (definitions of anorexia and bulimia, how to identify signs and symptoms of disordered eating, etc.) as well as information about the individual counseling services available and national testing dates and deadlines.

Without the First Year Experience class, many first-generation, high risk/low achievement students would never make it past their first semester. Simply by attending their weekly class, these students were at least made aware of the programs, services, and supports available on campus.

The gap here was two-fold. First, The First Year Experience program was coordinated by one individual, who also served as one of the on-staff counselors. And second, each section of FYE was taught by volunteers. Instructors were not compensated for their time. For the most part, full time Student Affairs professionals, not faculty members taught these courses.

Likewise, another significant gap was the insufficient number of staff available to meet student needs for mental health issues. At the time of this study, there were three counselors available to see students.

Health Services

The lobby of Health Services has looked the exact same with the same furniture for over 20 years. It is truly equivalent to the island of misfit toys. Nothing matches and it looks like they have every other office's discarded lamps, table, chairs and couches. Walking into the entrance is like traveling back into time, minus the shag carpet. There are signs posted everywhere for patients to shut their phones off in an attempt to maintain privacy and confidentiality; however, this practice doesn't appear to be strongly enforced as the day I was waiting, a student was chatting away in plain sight.

From the personal interview, I learned that Health Service is significantly impacted by limited staffing and a cut in services at the state level. Two years previous, funding for health services at the university level was withdrawn by the state. The decision was made to appropriate all Title X funding into the county health department only, instead of funding both (university and community health department). This elimination of funds forced the discontinuation of gynecological exams and the dispensing of birth control pills. As a result, Health Services reported a decrease of approximately 800 visits solely for gynecological exams in the next academic year.

Aside from that cut, Health Services still offers a variety of services to students, faculty and staff, including treatment for acute illness/disease, STI testing, crutches/slings for sprains/strains, and referrals for off-campus treatment in more serious medical conditions. Additionally, a student can provide documentation to a professor for an appointment in the case of a missed class.

The Health Services web-page

(<http://www.murraystate.edu/campus/HealthServices.aspx>), offered one of the most extensive sources of information from all the departments under study. Their web-page was very well done and offered not only the basic information, such as operational hours, location and services provided, but their mission statement falls very much in-line with the IOM's skills for health literacy as well as the six dimensions of optimal health/wellness

The mission statement of Health Services is to maintain, improve, and promote optimal wellness of the [university under study] community so that its members may achieve their academic, professional, and personal growth. The staff is committed to enhancing the educational process by:

- Removing or modifying health-related barriers to academic, professional and social activities;
- Educating individuals regarding lifestyle choices and the impact on health and wellness;
- Educating individual to make informed decisions about health-related concerns and how to be informed health-care consumers; and
- Promoting optimal wellness in all dimensions of the individual's life.

In addition, there was another page dedicated to just "Health and Wellness."

The C.A.R.E, or Coalition for Alcohol Risk Education, was made up of students, faculty, staff, parents, community members, and the Regional Prevention Center in an attempt to heighten awareness of risks associated with alcohol use and to provide a positive, low-risk environment for the [university under study] community. Likewise, on this page

was a link to a “risk appraisal” that could be completed and returned to Health Services for a consultation with one of the staff to address any areas of concern or suggestions for simple improvements or referrals for more in-depth needs.

As for their printed materials, Health Services had an extensive library of brochures, flyers, and small “table tent” items that are easy to read, and cover a plethora of topics from STDs / risky sexual behaviors, eating disorders, vaccinations, drug and alcohol use, and the importance of general hygiene.

The strengths of Health Services included central location on campus, access to free services, such as flu shots, treatment for minor illnesses (i.e. strep throat, upper respiratory infections, urinary tract infections, etc.), STD tests and treatment, and crutches for lower extremity injuries. Additionally, the wait for services was never very long, and the staff was extremely friendly. Another benefit to the student was the establishment of a health history as well as learning to identify key health issues and concerns in and among their families. This experience, in turn, served to raise awareness of personal behavior choices that could negatively impact their academic success and lives in general.

Probably the biggest draw and the most effective service offered was the “brown bag special.” As soon as you open the door, a milk crate that contains tightly rolled brown paper sacks, each with 10 condoms, STD facts, and correct condom usage brochures was just at arms-length. This type of “drive thru” convenience allowed students to grab and go. Within a matter of seconds, a student could dart inside, shove a brown bag into his/her backpack, and dart back out, armed with proper protection for sexual encounters.

An additional identified gap in Health Services was the limited hours of operation (Monday, Tuesday, Thursday, Friday; 8 AM-noon, and then 1-4:30 PM, and 8 AM – noon only on Wednesdays). There were no ‘after hours or weekend’ services available. Furthermore, the clinic MD was only available on Thursday afternoons, leaving the department with only five RNs and one NPRN.

Housing

The Housing Office is also located in the concrete dungeon/bottom level of the football stadium. While this location was supposed to be ‘temporary’ when the original office was torn down to build another residence hall, a new location has yet to be determined (going on four years now). This temporary location is certainly not ideal or attractive; it is small, cramped, old, disheveled, and very unprofessional looking. However, to my knowledge, finding a new, more reputable office is not on anyone’s agenda.

My interview with the Housing Director took place in his office, which is also cramped, messy, and unorganized. Stacks of folders, papers and various other items were on top of filing cabinets, on the desk, and in the floor. There was just enough room for either of us to move around in together. The Housing office is always busy with phones constantly ringing and people constantly coming in and out of the office. While the staff seems to be okay with walking around file boxes and work spaces practically on top of each other, the overall appearance is very unattractive and unprofessional looking.

The campus under study referred to all eight housing facilities as “Residential Colleges.” While each housing facility was originally named for someone associated

with the university at the time of construction, the name remained and the word “college” was added. The purpose of this change was to offer residents a connection not only to the university, but to a smaller, more personal, family-like living experience. All students, even those living off campus within the community or commuting from another community, were assigned to a residential college. In addition, all faculty and staff members were assigned to a residential college to encourage interactions outside of the normal assigned university duties.

The original intention was to have a faculty member serve as leader of each college and become heavily involved in programming and participating with the residents of each college. While this system had been in place for nearly 20 years, the normal ebbs and flows have occurred, which related to programming depending on the faculty head’s involvement and student buy-in. Each college is responsible for promotion of the available program, services, and supports mentioned in this case study. However, this promotion varies within each college from actual presentations by representatives from each program, service, or support, or a simple flyer posted inside the elevator, study lounge, or lobby.

The Housing Office webpage (<http://www.murraystate.edu/Campus/Housing.aspx>) had a very extensive amount of information linked within its web-page. The Mission Statement concluded with the following; “...encouraging interaction between faculty, staff, and residential students, involvement in campus activities, academic success and personal growth.” Much of the rest of the links directed students and parents to FAQs, housing assignments, forms, rates, exemption qualifications, etc. Additionally, it addressed environmental

issues and concerns for students, such as the modernization of the residential colleges, prohibiting any type of open flame, such as candles or incense, mention of sprinkler systems and emergency training drills and locations.

From an intellectual health dimension, within the Residential Colleges, there were designated “quiet floors” in all eight buildings. Students could request housing assignments in these designated locations so as not to be disturbed by others.

From a social aspect, the Residential College system strongly encouraged interactions among residents, faculty, and staff. Opportunities to do so were provided through intramural team participation (a good way of incorporating the physical aspect), programming events presented by various faculty and staff members, and other social events, such as pizza parties, cook-outs and holiday theme-parties.

The strengths and gaps of the residential systems are pretty cut and dry. Those who lived in the colleges were at least minimally exposed to programs, services, and supports on campus. By far, the heaviest involvement was through intramural participation.

Some colleges have been very successful and pride themselves on their ‘tradition’ of team/family; whether it was through participating in intramural sports, representing their college at athletic events, or organizing a homecoming float.

Office of Student Disability Services

While waiting for my interview to start, I noticed that the Director of this program had a narrow, small, cramped office with both a heater and a fan (it was explained that it was either one temperature extreme or the other in that building), and files all over the place. We sat together at a small two-person table in a dingy, poorly lit office. I was

immediately embarrassed that a Director of such an important program to students worked in this type of condition.

From the personal interview, it was evident that the OSDS staff was dedicated to providing great customer service for their students. Meeting accommodations and dedication to student success also was evident in speaking with any member of their staff. From a faculty perspective, they were very efficient in notifications of student disabilities in a confidential manner. Students enrolled in their program can take a test, or complete a homework assignment in their offices, free from distraction and with the assistance of a reader or extended time if needed. Additionally, the services provided for a large number of returning military personnel is undoubtedly appreciated by those transitioning from military life, which may have been highly structured, to a more flexible daily schedule, not to mention assistance with mental health issues associated with war.

The web-page for the Office of Student Disability Services is very informative and extensive (<http://www.murraystate.edu/HeaderMenu/Administration/StudentAffairs/departments/StudentDisabilityServices.aspx>). The Mission Statement included the explanation of the legal requirements to offer services as a result of the Rehabilitation Act of 1973 and The American Disabilities Act of 1990. On the main page, it addressed the services which it provides including academic advising, test proctoring, note taking, technical (i.e. audio textbooks and computer-readers), and academic tutoring. Additionally, there were 10 more links from the main, page which included topics, such as characteristics/definitions of specific learning disabilities, mentoring services,

announcements, FAQs, staff, contact information, suggestions for students, suggestions for faculty, and important dates.

The two additional documents that the director provided me at the time of the interview were the brochure that explained the qualification for services and program registration and fee structure (for additional private services). This information was primarily distributed to high school counselors and parents attending Summer Orientations.

A significant gap for the OSDS could be seen as more and more students came to campus with a variety of physical and mental impairments or disabilities. Limited staffing or technological demands made it difficult to keep up. The current roster for the academic year under study was approximately 600 students which includes several hearing and visually-impaired students who needed a technologically advanced system to allow them to be academically successful.

For the first time ever, a student came to campus (to live on campus) with a service animal. As a result, Housing, Facilities Management, Dining Services, Academic Affairs, and Student Affairs had to put into place a plan for meeting the required accommodations necessary for just one individual. Adjustments had to be made in the residence halls for the service animal, as well as in the dining facilities and the classroom.

For those students who have elected to participate in the OSDS services, the chance of academic success significantly increased. The staff was very student-oriented and willing to go above and beyond to ensure all barriers that could impede academic performance were addressed and completely eliminated, if possible.

President's Office

Walking in through the French Doors, the main office is dimly lit and there are two work areas--one to the right and one to the left. To the right, is one Administrative Assistant and to the left, is a student worker desk. The outer office feels very stiff and formal and I felt like a kid in a library who shouldn't speak above a whisper. The small couch was uncomfortable and the office décor was less than what I would expect from the President of a university, cold and drab. Entering through another set of French Doors into the President's office, it becomes much brighter due to the large set of windows and personal knick knacks on bookshelves and the desk. The office is large and roomy. However, from sitting outside in the lobby, I quickly learned that closing the doors has no effect on voice travel. I could hear every word of the phone conversation taking place while I waited. Therefore, when the interview started and the doors were closed, I was immediately aware that anyone within 15-20 feet would hear all of our conversation. As a result, I was concerned if the responses given were true opinions or statements that just sounded good "for the record."

As might be expected, the President's Office web-page (<http://www.murraystate.edu/headermenu/administration/PresidentsOffice.aspx>) visually, was one of the most appealing of any of the reviewed web-pages. It featured a large picture of the President, with a bright blue sky and one of the newest academic buildings on campus. There was a YouTube video of a recent campus event, social media links for the university, and a nice "calendar of events" displayed in large font down the right-hand side. The navigational bar down the left-hand side was descriptive and easy to read (white font on a navy-blue background). There also were links to

click on for recent issues of “Points of Pride” regarding campus awards and accomplishments.

The identified gap from the President’s office also stems from a lack of communication. During the personal interview, I learned that he was unaware of Health Service’s past involvement in the pilot program of Alcohol 101 for college campuses. This online training program has been implemented on other college campuses with specific regards to incoming freshmen to increase awareness of the dangers of alcohol use/abuse and binge drinking. He mentioned that he must not have heard about it due to budgetary constraints (i.e. the Vice President of Student Affairs didn’t never mentioned it because it was an expensive program to implement).

Public Safety

This facility was without a doubt, the most impressive office on the campus. When I met the Captain for my interview, I was taken on a tour of the facility which is less than five years old. It was one of the most overwhelming visual experiences for the untrained eye. Eight 37-inch television screens line an entire wall, which one person monitors. In addition, four computer monitors display street maps of the city/county. The CB radio is constantly chattering from campus and local police as well as the sheriff’s department, fire, and ambulance services.

As I was standing there in total sensory overload, the captain informed me that the FBI had recently been on campus for an investigation, and they remarked as to how impressed they were that such a small operation could be so technologically advanced. At any given moment, this tactical coordinator can zoom into almost any given point on campus, including up to a mile (in some locations) off campus.

Further into the building is a large conference room with computers and television monitors that is used as a tactical room for any type of emergency situation, weather, campus, or community emergencies, etc. It is also a shared facility with the Army National Guard unit in town.

While the rest of the building is sparsely decorated and painted in steel gray, it does serve a purpose and is complete with tiny interrogation / interview rooms, evidence lockers, locked weapons storage, changing / locker facilities for the staff, a work-out room, small cafeteria, and offices for administrative personnel and officers. There are not many windows in this building except for the front office.

The Public Safety Officers on campus often are unfairly misjudged simply for their chosen profession. However, when working with and among them, it is evident they are clearly just as student-oriented and passionate as any other department within Student Affairs, even though they are not part of that division.

Public Safety's web-page (<http://www.murraystate.edu/publicsafety.aspx>) was very broad with the range of information, from physical safety (weather, fire, violence, medical emergencies, etc.) to environmental safety (hazardous waste, chemical spill, air quality, etc.). There were very detailed, step-by-step instructions on how to handle a gun-related incident on campus. In addition, from the main page, one could navigate to the "Annual Campus Security Report and Fire Safety Report," which is documentation of all the reported incidences on, or adjacent to university property.

Because of an arson-related student death in the residence halls in 1998, the university under study had an extensive reporting procedure in place as mandated by Federal Law. As a result, this document was published annually to report every

incident reported to campus police including fire, theft, assault, alcohol and drug related incidents, or arrests, harassment, and weapon possession.

The Public Safety web-page also offered links to the 911 emergency dispatch center, which indicated the location of the 37 emergency call boxes on campus. It is also noted on this page that students should learn to use the campus police number in their cell phones as opposed to 911. Any call placed to 911 was directly routed to the State Police in the next county. If a student were to call in an emergency situation, it is likely that the dispatcher at the State Police wouldn't be as familiar with that specific location as a Public Safety Officer on campus, resulting in wasted time to respond to the emergency.

Public Safety, with all of its technological advances and capabilities, had several significant strengths. The experienced staff (i.e. very low turn-over), student-friendly attitude, commitment to safety, and sheer presence on campus was reflective of a campus feeling of safety and security. The only identified gap in this program was the level of awareness by services for students.

Vice President of Student Affairs

The Vice President and his support staff also are housed within the building that is nearly condemned. While attempts have been made to 'spruce things up' the fact of the matter is that the building has not aged well. The heating and cooling units are still generated by steam, the windows are large and unsightly, and the floor creaks. Additionally, the support staff (two administrative secretaries and two student workers), sit collectively in one area. Even if a student wanted to speak privately to someone in regards to a concern, it wouldn't be possible to do so without being overheard.

The Student Affairs web-page

(<http://www.murraystate.edu/headermenu/administration/StudentAffairs/studentAffairsOffice.aspx>) had a very brief two paragraph statement to include the mission statement “...retention, welfare, growth, and development of [university] student population. The office encompassed every dimension of student life including academic, vocational, social-cultural issues, civility and tolerance education, value clarification, and physical and psychological development. In other words, “we’re here to help.” Additionally, hyperlinks are available to their Facebook page, a resource page, listing of department and programs within Student Affairs, contact information, and a parent and family page.

The Student Life Handbook (<http://murraystate.edu/studenthandbook>) was published by the Office of Student Affairs. It is a 37-page document that described every department on campus that a student would ever need to visit as well as the location and phone number of that department. On the front cover, the handbook lists the “eight characteristics of a [university under study] graduate.” Two of these characteristics apply directly to the skills needed for health literacy;

- Apply sound standards of information gathering, analysis and evaluation to reach logical decisions and
- Understand the importance of the behaviors necessary to maintain a healthy lifestyle.

The strength for Student Affairs was by far the Vice President’s personal quest to make students happy. This office conducted a high-visibility ‘welcome to campus’ three-day event for incoming freshman. This event assisted students and their families

moving into the residential colleges, offered free meals in the main cafeteria, engaged students and families in a spirited pep-rally, followed by a large local business showcase event in the basketball gym. In addition, various other fun, free activities were sponsored by the Student Government and Student Organizations Office to increase awareness of all the aforementioned programs, services, and supports.

Conversely, the gap was that this event is poorly attended by incoming freshmen (as noted by focus group discussion), and as a result, information regarding the available programs, services, and supports, went unnoticed.

Wellness Center

The Wellness Center is the newest building (7 years old) and probably equals in numbers of per day usages as the library and the main dining facility. It is a 75,000 square foot facility that was designed to be bright and open. There are huge windows all around the perimeter of the building allowing for lots of natural light, and the light gold and royal blue accent paint really accentuate that feeling. The design is very open – the upstairs cardio area includes over 50 different machines on either side of a four-lane walking track which is encased by a four-foot, white guard, allowing for total visibility of the entire downstairs facility. The main level consists of the administrative offices, three basketball courts, machine and free weights, and two racquetball courts. A large indoor pool is located on the east side of the entrance and an aerobic/dance room, and a multi-purpose/cycling room are located on the south side next to the administrative offices. At the main entrance is a very large commons area with several leather couches, tables and chairs, two table-tennis tables, two big-screen televisions,

and a Dance Dance Revolution (video dance game). Along the back wall are 12 computers that are available for anyone with a campus log-in to use.

Unfortunately, there is a significant amount of wasted space in a conference room that is too small to serve any real purpose and a large food services area that was originally intended to serve smoothies, but failed. The space is empty and really serves no purpose.

Facility hours and available fitness classes are always available for pick up at the front counter, and upon entering, each person must have his/her ID card swiped for verification purposes. To ensure everyone's safety, the policy is strictly enforced – no ID/no entry. There is also only one point of entry. All other doors are emergency exits only, and an alarm will sound if doors are opened to keep people from sneaking non-members in.

While parking for the facility is limited to the back of the building and patrons must walk around to the front; it is very well lit. There is a Public Safety Emergency call box on the sidewalk. In six years of working in that building, I am not aware of a single complaint of a member feeling threatened or unsafe either inside the building or on the perimeter.

The Wellness Center's web-page (<http://www.murraystate.edu/Campus/orgsRecreation/sportsRecWellness/recFacilities/wellnessCenter.aspx>), is the least descriptive of all the programs, services, and supports in the case study. The Wellness Center Mission Statement was as follows;

The Student Recreation and Wellness Center offer the University community, as well as alumni and family members, recreational and educational opportunities

that teach the values of wellness. This facility contributes to the quality of the [university under study] experience, enhances personal development, and provides opportunities for cultural and social interaction.

The only other listed information is about outdoor equipment rental, the aquatics area, and the workout equipment in the facility.

As far as printed materials/handouts, there was a fully stocked brochure stand which offered an excellent variety of health-related topics specific to college students. All of the brochures were purchased from ETR Associates, a private, non-profit organization which produces health education materials. I was very impressed with the quality and quantity of information and found all of the brochures to cover every aspect of health/wellness. Some examples of the titles and information included;

- *Eating Disorders; What? Why?*-Described warning signs of a friend/family member who might be overly concerned with dieting/food consumption/calorie intake, obsessive exercising and the physiological and psychological impacts from disordered eating.
- *Incredible alcohol facts* - "According to the U.S. Department of Justice, 35% of people convicted of rape or sexual assault used alcohol before the offense." "In a survey of 119 college campuses, 20% of students experienced five or more problems because of their alcohol use. Problems included missing class and driving under the influence" (www.etr.org, 2012).
- *Mental Fitness: Be emotionally healthy*- "People with good emotional health are able to have positive relationships, choose health behaviors, set obtainable

goals, engage in hobbies, sports events, productive at work/school and have one or more important interest” (www.etr.org, 2012).

- *Sexual Harassment* – Provided with the definition of sexual harassment, indicated that both genders can be sexually harassed, listed specific examples of situations which could be physical, verbal, or nonverbal.
- *Alcohol and pregnancy* – This brochure listed the effects of alcohol on the fetus including the physical and developmental damage in-utero and after birth. It also warned that no amount of alcohol is safe during pregnancy.
- *The abuse of prescription and over-the-counter drugs*- This brochure included statistics from the Substance Abuse and Mental Health Services Administration’s 2006 survey in regards to drug use among 12-17 year olds. According to this brochure, “More teens abuse prescription drugs than any other illicit drug than marijuana.” Additionally, “Between 1995 and 2005, the number of treatment admission for prescriptions painkillers increased by more than 300%.”
- *Five ways to be active everyday*- Listed fun and easy ideas for being active individually, or with friends/family.
- *Drug facts* – This brochure was a very detailed/colorful chart which indicated the immediate and long-term physical and psychological changes to the body. The following drugs were included; alcohol, Cocaine, Ecstasy, Heroin, inhalants, LSD, Marijuana, methamphetamines, PCP, steroids and tobacco products.
- *Asthma* – explained the signs, symptoms and physiological effects on the body when air flow to the lungs is restricted. This brochure touched on the

environmental aspect of air pollution, mold, and other common allergens (i.e. dust, pet dander, tree pollens, grass etc.).

The “Wellness,” as it is referred to on campus, was one of the most popular facilities. It met the needs of students, faculty, and staff for physical health, social interaction, and exercise for the purpose of stress relief/management as well as providing a fall and spring semester health fair. These health fairs were sponsored by the Wellness and Therapeutic Science Department and were intended to provide information specifically geared towards students in regards to lifestyle choices (both positive and negative). These fairs gave students the opportunity to learn about body composition, diseases associated with obesity and overweight, smoking cessation plans, strength challenges, stress management techniques and nutritional information.

Another identified strength of the “Wellness” was the fully stocked brochure stand located close to the main entrance. This stand provides over 30 different brochures covering a vast array of health-related information. The Director noted that this stand was restocked quite often, suggesting that students, were in fact, taking the information.

The identified gap in this area is the missed opportunity to offer more student services under one roof. Because it is one of the most heavily utilized facilities on campus, the opportunity for exposure to other programs, services, and supports seemed missed. As stated by the facility manager, “I’ve been to several other campuses’ recreation facilities who have really tried to incorporate a ‘one-stop-shop’ facility in which a student can come to one location and have access to services, such

as mental health counseling or treatment for minor sickness.” It, therefore, seemed logical that some of the wasted space could have been better utilized.

Summary

Chapter Four reviewed the primary and secondary purpose of the study which was to identify the following: student’s health-related needs, the health-related programs, services, and supports available at the campus under study, student’s level of awareness and/or perceptions associated with those programs, services, and supports, and finally, the positive and negative aspects of each program, service, and support.

CHAPTER 5

SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

This case study compiled information about health-related programs, services, and supports in a mid-size southern university. The primary purpose of this study was to determine if the university under study had adequate health-related programs, services, and supports in place to develop health-literate young adults. A secondary purpose was to identify strengths and gaps in these programs, services, and supports, which, if addressed, could increase the likelihood that college graduates would be health literate.

Summary of the Study

This research study served to answer three broad research questions: 1) What are the health-related needs and concerns among selected university undergraduates? 2) What are the strengths and gaps among identified health-related programs, services, and supports? 3) What is the level of awareness and utilization of programs, services, and supports by university undergraduate students?

In this chapter, I review the case under study, summarize research findings, draw conclusions, provide a discussion based on my experience with and observations of the case, and make recommendations to the university, for health education, and for future research endeavors.

The first part of the study involved personal interviews with preselected representatives of Student Affairs, the President of the university, the Provost, Captain of Public Safety, and the Senior Athletic Director. Interview questions were designed to determine how, if any, of the programs, services, or supports under study supported

the six dimensions of health and wellness, or the IOM skill set for health literacy. Interviews were approximately 30 minutes long and discussion moved freely and openly.

After all interviews were conducted, transcripts were reviewed and coding was conducted to determine the connection between the selected programs, services, and supports, and the IOM health literacy skill set and the six dimensions of health and wellness. Additionally, transcript review allowed for the identification of strengths and weakness among each of the programs, services, and supports. It was not surprising that administrators of each program, service, and support felt as though their programs were, for the most part, effective. However, all admitted to feeling inadequately funded and staffed and ineffectively promoted.

The second part of the study engaged students who volunteered to participate in focus groups in an open discussion about what they perceived health to be (as a concept) and to determine what, if any, personal health-related issues or concerns they felt at the present time, how health-related issues or concerns created barriers to their academic success, and their level of awareness about the programs, services, and supports available.

Not surprisingly, when asked, most students only identified the physical aspect of “health” and sometimes, as a mental aspect with regards to stress. Feedback from focus group discussions indicated that students could make a connection between all six dimensions of health and how they might impede academic performance. Unfortunately, however, they did not seem to possess the skills or the knowledge on to how correct negative health behaviors themselves, or how to seek out various health-

related programs, services, and supports that are available. By in large, students seemed very interested in learning more about many of these programs, services, and supports and indicated that they wished they had been made aware of such opportunities at the beginning of their college careers.

Students also communicated lack of knowledge and awareness about the available health-related programs, services, and supports. Focus group discussions indicated that students felt as though the campus under study had not really taken the time to discover which methods of communication were successful; further indicating that current delivery methods were outdated and ineffective.

After conducting the personal interviews and focus groups, I analyzed documents and material (i.e. web-pages, brochures, student handbook, under graduate bulletin) related to each department under study. This document analysis was also coded for connections to the six dimensions of health and wellness or the IOM's health literacy skill set. Web-pages were further analyzed for strengths and gaps related to each program, service, or support.

Conclusions

1. Students have a significant number of influences that can impede their ability to be academically successful. Comments such as “when you don't feel good, you don't really listen in class, take good notes, or feel like studying.” Or, “When you are stressed, sometimes it's just easier to not deal with any of it and just give up.” are reflective of such behaviors.

2. The list of health-risk behaviors is so extensive that the task of trying to address all of them seems almost daunting. Students seem very open and willing to participate in health-promoting programs, services, and supports if they were made aware of such opportunities as noted by their enthusiasm for the wellness center and the library. Students' suggestions as to how they would like to be notified of such programs, services, and supports were very simplistic and logically seemed very easy to undertake. Suggestions included text messaging, video message/commercials on the two large media boards at the basketball games, and creative signage on the back of bathroom stalls.
3. The current health-related programs, services, and supports at the university under study all served a purpose with well-intended goals in accordance to the mission of the university. With the exception of athletics, most other Student Affairs departments were limited in their ability to accommodate the number of students in need because of funding issues, staffing issues, and unfortunately, largely only reactive responses to health-related issues/behaviors, instead of prevention/awareness campaigns.
4. The [university under study] seemed to be wasting time and resources with its current communication strategies. Student feedback suggested that, with the current method, information that is disseminated goes unnoticed, which makes it ineffective.
5. The Athletic Department does an outstanding job of working with 350 athletes to emphasize the importance of holistic wellness. The remainder of the university student population did not have the same opportunities.

Discussion

This case study evolved from my interest in working with and among college students who would freely divulge their lifestyle habits either in my office, or as members of the social sorority to which I was an advisor. It was through these conversations that I became concerned about the number of students who nonchalantly engaged in various health-risk behaviors such as unprotected sex from casual hook-ups, binge drinking, drug use, cigarette smoking, driving under the influence, poor eating habits, calorie constriction as a method of weight loss, significant loss of sleep, stress and anxiety about academic performance, and the inability to effectively manage their time or their finances throughout the semester. Inevitably, I began to see a consistent pattern in how these behaviors contributed to students' inability to focus on their academic performance.

Colleges and universities have the opportunity to provide health-promoting skills which can foster positive, long-term positive behaviors. For many students, college serves as a huge transition period in a young person's life. Juggling independence along with time management, decision making, communication, and stress management skills can become challenging tasks, but if not adequately balanced, can lead to high-risk health behaviors.

As noted in Chapter Two, engaging in negative health-risk behaviors are less likely to be academically successful. Additionally, the highest rate of alcohol dependence at any age is among individuals aged 18-20 years (USDHHS, 2007). Alcohol-related issues surrounding college drinking include poor academic performance, property damage, and unsafe sex (National Institute on Alcohol Abuse

and Alcoholism, 2010). Hingson et al. (2005), determined that college students who began drinking prior to age 19 were more likely to develop early onset alcohol dependency and increased frequency of heavy drinking episodes.

Colleges and universities whose students engage in a high rate of drinking often experience more episodes of property damage, verbal and physical assault, sleep/study disruption, and sexual violence (Wechsler et al., 1995). Both Hingson et al. (2002) and Wechsler et al. (1995) attribute a high rate of violence and /or harassment including serious arguments, or physical altercations such as pushing, hitting, or assaults of a more serious nature to college student drinking.

A 2004 study conducted by the University of North Carolina stated that one out of every two sexually active college students will contract a Sexually Transmitted Infection (STI) before the age of 25 (Hingson et al, 2002). Furthermore, the South represents the highest number of cases of any of the four geographic regions of the United States (CDC, 2010). Among ethnicities, Blacks are significantly more likely to be infected with an STI. The Gonorrhea rate among Blacks is 20 times higher than Whites and 10 times higher than Hispanics (CDC, 2005). Specifically, young Black females 15-19 years old bear the heaviest rate (CDC, 2005). As for Chlamydia, Blacks represented almost half of all reported Chlamydia cases in 2009, and young Black women aged 15-24 are the most affected (CDC, 2010).

The level of responsibility to the students at the university under study is two-fold. First, they need to acknowledge the data presented in Chapter Two, and realize that the students coming to the university under study by in large, are engaging in these negative health-risk behaviors. Second, they need to acknowledge that the

communication efforts in regards to the currently available programs, services, and supports have largely gone unnoticed.

Student Affairs professionals at the university under study are very much 'student-first' oriented individuals, always making sure students have the tools they need to be academically successful. The Vice President holds a monthly meeting that is mandatory for all Directors/Coordinators. During these meetings, each department gives an update as to events taking place, important dates, recruitment strategies, work reflective of the university's missions and goals, and any student issues/concerns. With over 30 represented departments, this meeting serves as an informative opportunity for everyone within Student Affairs to be on the same page, but not necessarily increasing the effectiveness with which the student can be served. For many years, discussions explored housing a majority of the Student Affairs programs, services, and supports identified in this study within one building instead of spread them all over campus. It is easy to see how this consolidation would greatly improve student services as it would be much easier for collective programming efforts, increased communication, and awareness of services among departments, resulting in less stress.

As my role on campus evolved from Student Affairs staff to Health Education faculty, I felt as though it was my duty to raise an awareness of these inconsistencies. I started to feel as though, if we were going to truly fall in line with the roles and responsibilities of a post-secondary institution, we should become more cognizant of what that shift really involved. It felt as though we talked incessantly about making sure we supported the university's mission statement as well as the eight

characteristics we promised they would leave our institution having obtained.

However, the more I listened at meetings about what we should be doing and what departmental directors said they were doing, and the more time I spent with students directly, the more I began to notice inconsistencies.

As noted in chapter one, students specific to this region bring to campus pre-established behaviors that are considered to be high-risk. Health-related programs, services, and supports need to make more of an effort to address these behaviors through education. If one of the eight characteristics of a [university under study] is “Understand the importance of the behaviors necessary to maintain a healthy lifestyle” and student feedback suggests otherwise, this university is failing to graduate students who are meeting all eight characteristics.

I was surprised by the number of undergraduate students who are attending school as full-time parents. Parenting, while in college, is a substantial challenge, especially for those students who are single parents. Issues, such as daycare and sickness, can have a significant impact on a student’s ability to be academically successful. In addition, the financial burden associated with raising a child can add stress to a student’s life. Student/parents may rely on government assistance, such as loans, grants, and WIC, while, at the same time, have limited opportunities to work due to the demands of school and parenting.

There were no identified health-related programs, services, or supports in this study that addressed the specific needs of student parents (i.e. daycare services, dependent health care services, etc.). This gap could have an impact on student retention and could be an identified need.

Another area of concern, as reported by student feedback, was lack of communication with commuter students. Commuter students, whether simply living off-campus in rental properties, at home with family, or in different communities, represent the largest segment of our student body. Failing to effectively communicate with this population reflects the university's lack of assessment of its current communication strategies. Tinto's theory on student departure (1986) cited four specific reasons as to why students leave institutes of higher learning, one of which is organization. He suggested that students are affected by the daily functional operations of the institution, which includes leaders/administrative styles, communication strategies, and the speed of processing student requests.

Students involved in this case study expressed feelings of neglect when health-related programs, services, and supports were brought to their attention in the focus groups. Many stated that they would have appreciated knowing of such programs, services, and supports. When I asked students if they attended the "Welcome Back to Campus Event" before school, a very small percentage responded that they did.

Students that lived in the residential colleges were at least minimally exposed to health-related programs, services, and supports. Resident Advisors (RAs) were required to attend mandatory training for two weeks prior to the start of the fall semester. During this time, they attend training which included extensive information about each of the health-related programs, services, and supports involved in this case study. Additionally, Resident Advisors were required to be able to identify signs and symptoms (as well as how to respond to) of a student in crisis, one who had become

socially isolated, exhibited signs of stress/experienced frequent mood swings, or might express concerns about STD transmission/pregnancy prevention.

I believe the most alarming concern is the recent retirement of three of the professional staff in the First Year Experience/Counseling and Testing Center. The Director of the counseling center (over 40 years of service), the Coordinator of the FYE program/also a counselor (over 40 years of service) and the Director of the Women's Center (also a counselor and 20 years of service). While these positions can be refilled, the value of substantial years of experience cannot. This loss of three highly-trained, highly-experienced mental health professionals combined with a poorly designed web-page, seems to leave the university in a state of immediate attention to effectively serve students with mental health needs.

Similarly, as I began to teach validity and reliability in regards to health information (i.e. Internet sites, such as www.WebMD.com), it became clear to me that our students relied on their smart phones and computers for sources of information, oftentimes before they would make any personal face-to-face contact. As a result, it occurred to me how it has become imperative for universities to make their programs, services, and supports easily accessible at any point in time. Therefore, all aspects of a university must take into account the viability of their web-pages. Web-page information can provide instantaneous information to a parent or student in the time of an emergency (a phone number, contact person, where to go in the event of a natural disaster, or violent crime), information regarding hours of operation, or available services.

If a web-page isn't appealing or satisfying, it will most likely be ignored. For this reason, my first point of document analysis was each department's web-page. The 'first impression' of a web-page either invites further exploration or disengages a perspective student or parent if it is unappealing or difficult to navigate. For as long as I can remember, as an employee of this university, the 'web-page' has been a point of contention. Unless you know specifically what you are looking for and type in the exact words, information about departments and information in general can be difficult to find.

In most of my classes, I discuss the health care system. I spend time covering basic terminology associated, such as co-pays, explanation of benefits (EOBs), deductibles, referrals, family history, the importance of listing any medications (over-the-counter, vitamins, herbal products and prescriptions) informed consent. I incorporated this content into my lectures because I started to get feedback in person and on evaluations thanking me for explaining "insurance" to them. If the university under study has a significant number of first time college students coming from low to lower middle socioeconomic status, it is feasible that these students may come from families with inadequate, or no health insurance. Personally, it seems logical that the university under study would want its graduates entering in the employment sector to possess skills and a basic understanding of health care benefits.

Recommendations to the University

1. Implement a coalition on campus to work towards integrating more programs, services and supports to address health-literacy. By working towards an improvement in health literacy, the university could improve program, service,

and support awareness, image and effectiveness and potentially increase retention.

2. Develop a “life-skills” course designed to address financial responsibility, challenges and responsibilities of parenting, understanding the healthcare system (to include health promotion and health insurance), how to prepare nutritious meals, communication skills (effective oral and written communication at home and work). Students who actively engage in skill-based learning and show mastery of that skill, are more likely to incorporate that skill into their lifestyle (i.e. showing a student how to prepare a healthy meal by eliminating fats and adding whole grains, reading and interpreting a Health Risk Appraisal Form, or developing a monthly budget).
3. Encourage other areas of academia to incorporate health/wellness within their curricula. It is easy to incorporate health/wellness into science (biological functions relative to heart health and cancers), in a math classes (reading and interpreting nutrition labels), and in sociology and psychology classes (addressing cultural beliefs as well as spiritual and interpersonal dimensions of health/wellness).
4. Listen to the target audience. Students are aware of the behaviors in which they engage, but are seemingly unaware of how seriously it can affect their academic performance.
5. Concentrate more efforts towards promoting prevention; alcohol awareness, pregnancy prevention, STD prevention, and mental health awareness to reduce barriers to academic performance and produce ‘well-balanced’ graduates.

6. Investigate benchmark institutions for effective prevention programs so that we don't 'reinvent the wheel.'
7. Reinstated the HEA 191, Personal Health class as part of the University Studies curriculum. Students in this class are exposed to the six dimensions of health, (mental, physical, spiritual, environmental, intellectual, and social/interpersonal) and given the opportunity to practice, and or engage in activities related to those dimensions to acquire skills which reinforce positive lifestyle behaviors. In addition, this class would provide opportunities for the introduction of the available health-related programs, services, and supports from guest speakers. Additionally, because of the 100-level status, students could take it early in their program, therefore, attempting to correct or address high-risk behaviors or lifestyle choices sooner.

Recommendations for Future Research

1. Replicate of the study at other universities. As college students come to post-secondary institutions engaging in high-risk taking behaviors which can impede academic success, it seems logical to determine to what extent health-related programs, services, and support can be effective at raising awareness about, and attempt to correct behaviors associated with long-term health consequences.
2. Reevaluate personal interview and focus group questions so they might elicit more specific responses. Research questions were submitted for an expert panel review among persons familiar with health/wellness concepts. It seemed

as though because most of the personal interviewees and student focus group participants were unfamiliar with the environmental, spiritual and interpersonal dimensions of health/wellness, they had trouble making the connections as to how these dimensions could impede academic performance. As a result, I felt as though I ended up prompting most of the discussion.

3. Conduct a mixed-methods study; incorporating a survey to determine what health-related skills students possess, as well as their attitudes, values, and beliefs about health.

Closing Reflections

Over the course of this study (from the literature review) and my first year of full-time teaching, I have gained valuable insight as to the serious impact high-risk behaviors students confess to engage in can have on academic success. Furthermore, as a health educator, it was interesting to hear what students' health-related needs/concerns are and how they perceive those needs/concerns to impact their academic success (either negatively or positively). I also found it interesting to discover that they do in fact, want and appreciate information about overall health/wellness. It is my hope that this university can move in the direction of more awareness and prevention, as opposed to simply reaction and treatment.

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APPENDICES

APPENDIX A

DEFINITION OF TERMS

Definition of Terms

Academic Success: Successful students are those that have “learned to effectively balance the social and academic aspects of school, expect to succeed, and may be described as socially proficient, goal oriented, and intrinsically motivated” (Ellis, 1994).

Case Study: “An examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group” (Merriam, 1988, p. 9)

Health: as defined by the World Health Organization constitution of 1948, “a state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity” (Nutbeam, 1997).

Personal and Social Competence: “a variety of intrapersonal skills, interpersonal skills, coping skills and judgment skills.” (Pittman & Cahill, 1992 p.20).

Retention: The normal progression of a student with continuous enrollment of a full-time load resulting in graduation after approximately four years (Gale Encyclopedia of Education, 2002).

Six Dimensions of health:

Spiritual– A set of guiding principles, values and beliefs that give meaning and purpose to life (Fahey, Insel, & Roth. Walton T., 2009, pp. 2-3).

Interpersonal – The ability to develop and maintain satisfying relationships (Fahey, Insel, & Roth. Walton T., 2009, pp. 2-3).

Intellectual – The continual process of learning, solving problems and stimulating mental functions (Fahey, Insel, & Roth. Walton T., 2009, pp. 2-3).

Emotional – The ability to deal with feelings and emotions appropriately (Fahey, Insel, & Roth. Walton T., 2009, pp. 2-3).

Physical – overall condition of the body and the absence of disease (Fahey, Insel, & Roth. Walton T., 2009, pp. 2-3).

Environmental – The livability of a person’s surroundings (Fahey, Insel, & Roth. Walton T., 2009, pp. 2-3).

Student Affairs: “provide services and develop programs that affect all aspects of students' lives inside and outside of the classroom. Some of the things student affairs professionals do in their day-to-day jobs include enhancing student learning, helping guide academic and career decisions, mentoring students, and developing leadership skills” (NASPA, 2010).

APPENDIX B

INSTITUTE OF MEDICINE "EXAMPLES OF SKILLS NEEDED FOR HEALTH
LITERACY"

Institute of Medicine “Examples of Skills Needed for Health Literacy”

Health-Related Goal	Sample Tasks and Skills Needed
Promote and protect health and prevent disease	<ul style="list-style-type: none"> • Read and follow guidelines for physical activity • Read, comprehend, and make decisions based on food and product labels • Make sense of air quality reports and modify behavior as needed • Find health information on the internet or in periodicals and books
Understand, interpret, and analyze health information	<ul style="list-style-type: none"> • Analyze risk factors in advertisement for prescription medicines • Determine health implications of a newspaper article on air quality • Determine health implications of health-related initiatives in order to vote
Apply health information over a variety of life events and situations	<ul style="list-style-type: none"> • Determine and adopt guidelines for increased physical activity at an older age • Read and apply health information regarding childcare or eldercare • Read and interpret safety precautions at work; choose a health-care plan
Navigate the health-care system	<ul style="list-style-type: none"> • Fill out health insurance enrollment or reimbursement forms • Understand printed patient rights and responsibilities • Find one’s way in a complicated environment such as a busy hospital or clinical center
Actively participate in encounters with health-care professional and workers	<ul style="list-style-type: none"> • Ask for clarification • Ask questions • Make appropriate decisions based on information received • Work as a partner with care providers to discuss and develop an appropriate regimen to manage a chronic disease
Understand and give consent	<ul style="list-style-type: none"> • Comprehend required informed consent documents before procedures or for involvement in research studies
Understand and advocate for rights	<ul style="list-style-type: none"> • Advocate for safety equipment based on worker right-to-know information • Request access to information based on patient rights documents • Determine use of medical records based on the right to privacy act • Advocate on behalf of others such as the elderly or mentally ill to obtain needed care and services

APPENDIX C

SKILLS NECESSARY FOR HEALTH LITERACY

Skills Necessary for Health Literacy

Standard 1	Students will comprehend concepts related to health promotion and disease prevention to enhance health.
Standard 2	Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
Standard 3	Students will demonstrate the ability to access information, products, and services to enhance health.
Standard 4	Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
Standard 5	Students will demonstrate the ability to use decision-making skills to enhance health.
Standard 6	Students will demonstrate the ability to use goal-setting skills to enhance health.
Standard 7	Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
Standard 8	Students will demonstrate the ability to advocate for personal, family, and community health.

(Joint Committee on National Health Education Standards, 2007).

APPENDIX D

INFORMED CONSENT TO INTERVIEW FOR DISSERTATION RESEARCH PROJECT

Informed Consent to Interview for Dissertation Research Project

I am pursuing my Ph.D. in Health Education from Southern Illinois University-Carbondale, and presently am involved in the research portion of my dissertation. This dissertation is a case study, mixed methods research study in which I will be interviewing several key individuals who are directly involved with students on a daily basis.

The focus of this study revolves around the term “health literacy” and whether or not the University, has the appropriate programs, services, and supports on campus to both promote and support health literacy among our students.

You are being invited to participate based on your knowledge of the health-related programs, services, and supports currently in place at the University. The questions asked during the interview will seek to determine your perception of the health-related needs of the students on this campus. Your participation will include reading the attached materials and participating in one audiotaped interview lasting from 45 minutes to an hour. You may end the interview at any time and request that the audiotape be erased.

You will not be identified by name in the dissertation. Your participation is voluntary. You will receive a hard copy of the interview transcript within two weeks following the interview. You may make any changes you choose. You have the right to withdraw from the study any time up until April, 2012. At that point, I will be in the final stages of the writing process and will not be able to remove quotations from the document. At the conclusion and approval of the research project, audiotapes will be destroyed.

I appreciate you giving time to this study, which will help me, as well as the University, learn more about what can be done to support health literacy among our students to better prepare them for their future careers. If you have any questions, please feel free to call me at (270) 293-3343. You may also call my committee chairperson, Dr. Joyce V. Fetro, Department Chair for Health Education and Recreation, Mailcode 4632, Southern Illinois University Carbondale, IL 62901-4632, by e-mail at jfetro@siu.edu, or by telephone at (618) 453-2777. This project has been reviewed and approved by the SIU Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Research Development and Administration, Southern Illinois University Carbondale, IL 62901-4709; Phone: (618) 453-4533.

Thank you,

Alison Epperson

Please sign below if you are willing to participate in the dissertation research project outlined above.

By signing below, the research participant verifies:

I have read the material above, and any questions I asked have been answered to my satisfaction. I understand a copy of this form will be made available to me for the relevant information and phone numbers. I agree to participate in this activity and I know that my responses will be recorded on audiotape. I realize that I may withdraw without prejudice at any time.

Signature_____

Print name_____

Date_____

APPENDIX E

INFORMED CONSENT TO INTERVIEW FOR DISSERTATION RESEARCH PROJECT
– FOCUS GROUP

Informed Consent to Interview for Dissertation Research Project – Focus group

I am pursuing my Ph.D. in Health Education from Southern Illinois University-Carbondale, and presently am involved in the research portion of my dissertation. I would like to invite you to participate in a research project that will examine existing health-related programs, supports and services at this university and their ability to meet health-related needs of students.

The questions asked during the focus group session will seek to determine your perception of the health-related needs of college students and what programs or offices on campus best meet those needs. Your participation will include participating in one audiotaped focus group interview lasting from 45 minutes to an hour. You may stop participating in the focus group interview at any time.

You will not be identified by name in the dissertation. Your participation is voluntary. At the conclusion and approval of the research project, audiotapes will be destroyed. All reports based on this research and written by the researcher will maintain the confidentiality of individual in the group. Only group data will be reported and no names will be used. Since focus groups involve a group process, all members of the group will be privy to the discussions that occur during the session; therefore, absolute confidentiality on the part of the participants, themselves, may be difficult to ensure.

I appreciate you giving time to this study, which will help me, as well as the University, learn more about what can be done to support college students in their health-related needs. As a token of my appreciation, you will be treated to either breakfast foods (donuts / biscuits) or pizza, depending on the time of the scheduled group meeting.

If you have any questions, please feel free to call me at (270) 293-3343. You may also call my committee chairperson, Dr. Joyce V. Fetro, Department Chair for Health Education and Recreation, Mailcode 4632, Southern Illinois University Carbondale, IL 62901-4632, by e-mail at jfetro@siu.edu, or by telephone at (618) 453-2777. This project has been reviewed and approved by the SIU Human Subjects Committee. Questions concerning your rights as a participant in this research may be addressed to the Committee Chairperson, Office of Research Development and Administration, Southern Illinois University Carbondale, IL 62901-4709; Phone: 9618) 453-4533.

Thank you,

Alison Epperson

Please sign below if you are willing to participate in the dissertation research project outlined above.

By signing below, the research participant verifies:

I have read the material above, and any questions I asked have been answered to my satisfaction. I understand a copy of this form will be made available to me for the relevant information and phone numbers. I agree to participate in this activity and I know that my responses will be recorded on audiotape. I realize that I may withdraw without prejudice at any time.

Signature_____

Print name_____

Date_____

APPENDIX F

FOCUS GROUP INTERVIEW PROTOCOL

Focus Group Interview Protocol

Title: Health Literacy Among College Students; A Case Study Approach

Time of focus group interview:

Date:

Place:

Interviewer:

I am conducting a series of focus groups to get a better understanding of what your health-related needs are and your awareness of the current programs, services, and supports which are offered on campus, and if they serve to meet the needs of college students.

You are being invited to participate in this focus group as a randomly selected group of students representing the larger university population. The questions asked during the focus group interview seek to find out your perceptions of the health-related needs of college students on this campus and what programs, services, and supports on campus best meet those needs.

APPENDIX G

FOCUS GROUP OBSERVATION PROTOCOL

Focus Group Observation Protocol

DESCRIPTIVE NOTES	REFLECTIVE NOTES

(Nielson-Bohlman, Panzer & Kindig, 2004)

APPENDIX H

DOCUMENT ANALYSIS PROTOCOL

Document Analysis Protocol

Examining the programs, services and supports available to promote health literacy among college students: A Case Study

Name of document

Date of document

Date of document analysis

Type of document (brochure, website, course catalogue, etc)

Author(s)

Intended audience

Intended purpose

Health related capacity

Source of document

Coded

APPENDIX I

CODES

Codes

	Physical	Spiritual	Environmental	Intellectual	Emotional	Interpersonal
Wellness Center						
Dining Services						
Athletics						
Public Safety						
President						
Housing						

Appendix I (cont.)

	Physical	Spiritual	Environmental	Intellectual	Emotional	Interpersonal
VP Student Affairs						
Provost						
FYE / Counseling & Testing Center						
Health Services						
Office of Disability Services						

Appendix I (cont.)

	Promote and protect health and prevent disease (NHES 1,3,5,6,7 & 8)	Understand, interpret, and analyze health information (NHES 1,2,3,5 & 8)	Apply health information over a variety of life events and situation (NHES 1,3,5,7, & 8)	Navigate the health-care system (NHES 4)
Wellness Center				
Dining Services				
Athletics				
Public Safety				
President				
Housing				

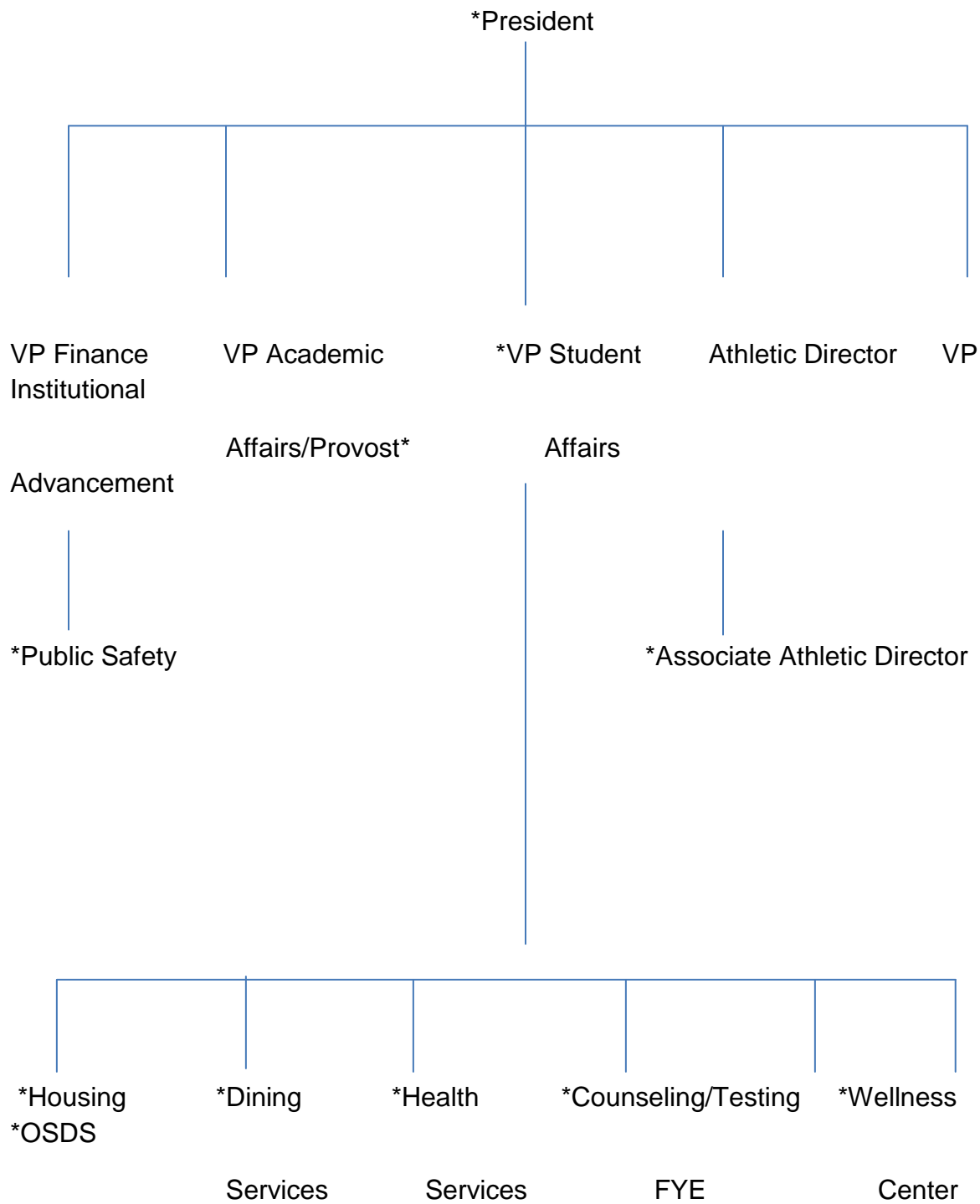
Appendix I (cont.)

	Actively participate in encounters with health-care professional and workers (NHES 1,2,3,4,5 & 7)	Understand and give consent (NHES 4 & 5)	Understand and advocate for rights (NHES 4, 5 & 8)	
VP Student Affairs				
Provost				
FYE/Counseling & Testing				
Health Services				
Office of Disability Services				

APPENDIX J

ORGANIZATIONAL CHART

Organizational Chart



APPENDIX K

FLYER FOR STUDENT GROUP PARTICIPATION

Flyer for Student Group Participation

WHAT'S YOUR OPINION?

My name is Alison Epperson, and I'm conducting a study in regards to the health-related needs of our students and the programs, services, and supports available to address those needs. Essentially, I want to know if you have health-related concerns and if you feel like those concerns can be met through the various departments all over campus.

If you are willing to give 45-60 minutes of your time to participate in a focus group (a small group gathering in an open discussion format) to share your thoughts and ideas, I'd be very appreciative of your time.

Please be aware that the session will be tape recorded, but you in no way will be identified by name. The tapes will be stored in my office until the completion of the study (Summer 2012) at which time, they will be destroyed.

As a token of my appreciation, I will provide either donuts or pizza (depending on the time slot you choose).

If you are willing to participate, please select a date / time / location that is most convenient to your schedule and indicate that to your teacher. Your name will not be used to identify you, only to determine a number for ordering food for the focus group.

Date	Time	Location
Wed. 10/19	8 AM	206 Ordway Hall
Tues. 10/25	8 AM	2109 Alexander Hall
Tues. 10/25	9:30 AM	2109 Alexander Hall
Tues. 10/25	12:30 PM	2203 Alexander Hall
Thurs. 12/1	10 AM	2109 Alexander Hall

Table 6a

Senior Student Affairs Administrator

Purpose/ function

- To serve as a senior administrator and institutional leader in helping to accomplish the mission and goals of the institution.
- To provide leadership for the development and delivery of essential student affairs and services programs.
- To provide leadership in identifying, interpreting, and serving student needs.
- To develop and articulate to the institution a philosophical framework and mission for student affairs and services.
- To develop and maintain an appropriate organizational structure for the delivery of student affairs and services.
- To support, advocate for and promote the needs and interests of students to appropriate institutional and other constituencies.
- To develop institutional policies that are congruent with cultural/ social needs of students and institutional values.
- To develop and allocate governmental, institutional, and extramural resources to carry out the mission of student affairs and services.
- To develop a student affairs and services framework that supports the enhancement of student learning outcomes and success.
- To provide institutional leadership in providing access to students from all economic levels of society.
- To promote the values of pluralism, diversity, and multiculturalism.
- To utilize all forms of technology as tools to enhance the delivery of student affairs and services programs.
- To serve as an integrator of functions across the university for the purpose of enhancing student learning and success.
- To integrate the mission, programs, and services of student affairs and services with the academic and other divisions of the institutions.
- To serve as an effective steward of resources provided by students, government, taxpayers, etc.

(IASAS, 2001 p. 27)

Table 6b

Senior Student Affairs Administrator

Typical Activities

- To carry out all student affairs and services functions within the ethical framework of the profession and higher education in general. Developing long range plans and developing policies accordingly.
- Preparing and administering budgets and overseeing the expenditure of funds.
- Meeting regularly with colleagues in other areas of the institution to discuss institutional and student priorities
- Advising and working closely with student leaders to pursue common goals.
- Representing student affairs and services on important committees and providing reports on key student issues.
- Conducting research studies on student and their needs.
- Working with other university officers to provide a safe and secure campus environment in which students learn and grow.
- Encouraging faculty involvement in student organizations and activities outside the classroom.
- Developing rich and diverse learning communities in cooperation with faculty.
- Handling appeals of student disciplinary cases.
- Working with faculty on projects that enhance student learning outcomes.
- Assisting faculty in working with students who may be experiencing financial, personal, or family concerns that interfere with academic work.
- Conducting evaluation, assessment, and program review on all units in student affairs and services.
- Providing appropriate staff supervision and professional development.
- Coordinating a comprehensive student activities and organizations program.
- Administering essential student affairs and services programs such as financial aid, counseling, health, recreation, admission and records, student government, residence halls, and others.
- Conducting institutional and student affairs fundraising activities.
- Serving as a public spokesperson on student needs / welfare matters.

(IASAS, 2001 p. 28)

Table 7a

Academic Advising (Educational Counseling)

Purpose/function
<ul style="list-style-type: none">• To assist students in developing educational plans that are consistent with their life goals.• To provide students with accurate information about academic progression and degree requirements.• To assist students in understanding academic policies and procedures.• To help students access campus resources that will enhance their ability to be academically successful.• To assist students in overcoming educational and personal problems• To identify systemic and personal conditions that may impede student academic achievement and developing appropriate interventions.• To review and use available data about students' academic and educational needs, performance, aspirations, and problems.• To increase student retention by providing a personal contact that students often need and request, thereby connecting them to the institution.
<p>(IASAS, 2001 p. 28)</p>

Table 7b

Academic Advising (Educational Counseling)

Typical Activities

- Assisting students with decision-making and career direction.
- Helping students understand and comply with institutional requirements.
- Providing clear and accurate information regarding institutional policies, procedures, and programs.
- Assisting students in the selection of courses and other educational experiences (e.g., internships, study abroad).
- Referring students to appropriate resources, on and off campus.
- Evaluating student progress toward established goals.
- Collecting and distributing data regarding student needs, preferences, and performance for use in refining or revising institutional/agency decisions, policies, and procedures.
- Interpreting various interest/ ability inventories that provide students with information related to their career choices.
- Utilizing a variety of supplemental systems such as on-line computer programs to deliver advising information.

(IASAS, 2001 p.29)

Table 8

Health Services

Purpose/function

- To promote and enhance the good health and well-being of students that support student academic success and enhance the quality of campus life.
- To offer effective on-campus primary health care and information services at little or no cost to registered students.
- To promote student health education, awareness, and wellness programs.

Typical Activities

- Providing outpatient, primary care with diagnosis, treatment, and consultation on most general health care needs.
- Providing specialty clinics for specialized care in dermatology, orthopedics, minor surgery, gynecology, internal medicine, ophthalmology and urology, neurology, and other unique treatments modes such as acupuncture.
- Conducting women's and men's health clinics that provide care and treatment for gender specific problems.
- Conducting outreach programs and learning opportunities that emphasize self-help in achieving and maintaining health.
- Providing a peer health counselor program that provides peer care and educational counseling for health concerns.
- Providing supplemental, affordable health insurance coverage for health care needs that cannot be obtained in the student health clinic such as hospitalization, surgery, and some specialized treatments.
- Providing information on health issues specifically involving the college age student, e.g. sexually transmitted diseases, stress, diet, and depression.

(IASAS, 2001 p.38-39)

Table 9a

Counseling Services

Purpose/function

- To provide counseling and clinical services to students experiencing psychosocial problems that could be potentially disruptive to their successful academic, interpersonal, and campus adjustment.
- To assist students in learning new and more effective ways to cope with stress and disappointment, resolve conflicts, deal with specific problems or habits and manage their lives.
- To cooperate with the health service units to use psychiatric interventions, (e.g., necessary medications and referrals), for seriously distressed students.
- To provide consultation and advice to campus staff and faculty and family members to assist in dealing with students who have emotional problems.
- To provide psychologists, clinical social workers, and psychiatrists for the treatment of students who are experiencing a wide range of problems.
- To provide opportunities that enable students who may be experiencing personal, social, or educational problems to work towards becoming more effective in their lives within and outside the institution.
- To assist and support students with the transition to university life.
- To provide developmental / preventative programs and activities that assist students to become more effective and resourceful in their personal, social, and academic lives.
- To provide a psychological consultative/ advisory/voluntary training service to teaching and other staff enabling them to maximize their effectiveness in carrying out their guidance and learner support roles.
- To develop the highest level of professional standards to ensure delivery of a high quality, cost-effective counseling and psychological service to students.

(IASAS, 2001 p.39-40)

Table 9b

Counseling Services

Typical Activities

- Engaging in brief individual psychotherapy, crisis intervention, couples counseling, group psychotherapy, behavior modification, hypnotherapy, biofeedback, and medication therapy as needed.
- Selectively employing various modalities in combination into individualized treatment programs for student clients.
- Providing outreach services to traditional and underserved student populations including efforts to assist them to cope with typical developmental and situational issues.
- Offering programs for the promotion of a healthier campus environment.
- Providing training placements and internships for graduate degree programs and mental health professionals seeking licensure.
- Operating a confidential, after-hours telephone help-line / referral service to assist students in crisis when no face-to-face counseling is available.
- Conducting group counseling programs on common themes.
- Providing intake procedures to make contact with walk-in clients.
- Preparing explicit and informed contracts with student clients concerning clearly acknowledged boundaries, data protection issues, and commitment to privacy and confidentiality.
- Having available a clear referral system that is accessible to all students who may wish to make contact themselves or who may be referred by others.
- Offering advocacy on behalf of students who receive counseling when extenuating circumstances may have an adverse effect on study and assessment / exam results.

(IASAS, 2001 p. 37)

Table 10a

Sports/Recreation/Intramurals

Purpose/function

- To develop sports, recreation, and intramural programs based on a student-centered philosophy emphasizing the overall quality of life.
- To conduct sporting and recreation programs that foster academic success by being respectful of individual differences and promoting excellence.
- To provide participation in a variety of recreational sports activities which satisfy the diverse needs of students, faculty, and staff, and where appropriate, guests, alumni, and public participants.
- To coordinate the use of campus recreation facilities in cooperation with other user units, such as athletics, physical education, and student activities.
- To provide extracurricular education opportunities through participation in recreational sports and the provision of relevant leadership positions.
- To contribute positively to institutional public relations by providing significant and high-quality recreational sports programming and serving as an information resource for the community.
- To cooperate with academic units, focusing on the development of a recreational sports curriculum and accompanying laboratory experiences.
- To promote student learning by encouraging physical fitness and skill development, satisfying and productive use of leisure time, appreciation of diversity, achievement of personal recreation/conditioning goals, and physical maturity.

(IASAS, 2001 p. 46)

Table 10b

Sports/Recreation/ Intramurals

Typical Activities

- Coordinating recreational programming, facilities, and equipment.
- Supervising all campus recreational programs and services.
- Providing informal programs for self-directed, individualized involvement to meet students' desires to participate in sport for personal fitness and enjoyment.
- Organizing intramural sports to provide structured contests, meets, tournaments, and leagues, limiting participation to campus members.
- Offering sport clubs that provide opportunities for individuals to organize around a common interest in a sport within or outside the institution.
- Providing instructional programs for learning opportunities, knowledge, and skills through lessons, clinics, and workshops.
- Offering outdoor programs and activities providing participants with opportunities to experience natural environments and new challenges.
- Developing fitness programs that provide opportunities and assistance to students and others in carrying out their personal exercise programs.
- Developing recreation and aquatic programs.
- Providing health promotion and wellness programs.
- Organizing extramural sports that provide structured tournaments, contests, and meets among participants from other institutions.
- Developing recreation sports programs for persons with disabilities.
- Encouraging program staff to serve as resources to the community, providing expert advice on recreational issues and activities.
- Providing recreational activities for students including weight training, exercise and fitness centers, jogging/walking courses, canoe/kayak rentals, tennis/ golf/squash courts etc.

(IASAS, 2001 p.46)

Table 11

Women's Center

Purpose/function

- To promote a safe psychological/ physical campus environment for women.
- To assist/support all individual women students in times of personal crisis.
- To provide programs designed to enhance graduation rates, the development of leadership abilities and the personal growth of women students.
- To provide assistance/expertise to the educational community on issues relative to women students (security, harassment, sexual violence, etc.).
- To train women students to establish health and wellness programs.
- To provide informational and educational programs to all members of the educational community on the rights and needs of women students.

Typical Activities

- Providing one-to-one support to individual women students in crisis.
- Establishing/managing a center where women feel safe and welcomed.
- Organizing conferences and various social and cultural activities designed to inform and engage the community in discussion of women's issues.
- Creating and managing a documentation center on women's issues.
- Supporting various student groups in their promotion of women's issues.
- Working with educational leaders to develop recruiting programs for potential women students and various accessibility support mechanisms to facilitate transition to higher education and, eventually, the work force.

(IASAS, 2001 p. 50)

Table 12a

Student Housing/Accommodations and Residential Life

Purpose / function

- To provide safe, comfortable, well-maintained, and supportive on-campus accommodations for students.
- To maintain a long range facilities plan for on-campus student accommodations that is in keeping with institutional goals.
- To integrate student accommodation goals with those of the academic program of the institution.
- To provide sound management and leadership to operate the student accommodations unit in an effective and efficient manner.
- To provide students/staff with technology infrastructure and assistance.
- To create opportunities for students to get involved in leadership and governance opportunities in resident life organizations and activities.
- To develop a code of conduct expectations for students and for faculty/staff in relation to non-campus living.
- To form student governing boards that will plan/ organize programming in the residence halls and advocate for student living area interests.
- To carry out planning, evaluation, and assessment activities as necessary.
- To foster a residential environment in which all members promote respect and hold each other accountable for their actions.

(IASAS, 2001 P. 38)

Table 12b

Student Housing /Accommodations and Residential Life

Typical Activities

- Planning and carrying out study and recreational activities in the residence hall including quiet periods for study.
- Coordinating academic advising, career planning, time management, and instructional activities within the housing and other units as appropriate and in coordination with various academic and other units within the institution.
- Offering a variety of living options including individual, group, alcohol/smoke-free, undergraduate, graduate, disability, first year, and other options.
- Providing mentoring and student development programs.
- Advising residence hall governments and student organizations.
- Providing staff training and development support
- Hiring and training students to become resident assistants, peer assistants, and resident advisors to their peers in a live-in environment.
- Conducting student misconduct disciplinary hearing in cases that originate in student housing.
- Offering summer housing options for conferences, workshops, and camps.
- Operating a physical fitness center in the student housing area and in cooperation with health and recreation units on campus.
- Organizing volunteer activities for residence hall students.
- Conducting research on students living in on-campus housing.

(IASAS, 2001 p. 48)

Table 13

Developmental Learning Centers

Purpose/functions

- To provide educational support in a flexible manner to enrolled students regardless of age, stage, and background.
- To assist in the identification of core groups of students in need of specifically designed learning programs.
- To provide an opportunity for individual students to achieve academically to their fullest potential
- To assist individual students in becoming autonomous, confident, and effective learners in order to successfully meet academic standards.
- To provide advice, assistance and resources to faculty seeking to embed ways of improving student learning strategies in curricula.
- To work with faculty and students on providing peers support opportunities.
- To work with faculty/staff on student cultural diversity and learning styles.

Typical Activities

- Consulting with faculty and students regarding student learning needs.
- Designing/delivering seminars and workshops to support student learning.
- Providing facilities for students and faculty that access learning support materials and programs.
- Providing a service to individuals seeking assistance with academic tasks.
- Providing or making available through a flexible range of media and delivery, options, appropriate materials and support mechanisms for student learning.
- Coordinating the activities and events of the various peers support groups.
- Promoting learning support services through advertising and events.
- Acting as the first point of contact for students.

(IASAS, 2001 pp. 38-39)

Table 14

Disability Services

Purpose/function
<ul style="list-style-type: none">• To provide appropriate assistance and opportunities for students with disabilities so that that they are able to compete equally with their peers in the academic environment.• To assist students in gaining access to all programs, services, and activities sponsored by the university.• To conduct informational programs aimed at students who may not be aware of their disabilities.• To advise and assist students with acquiring classroom and other accommodations in order to have equal access..• To assist and support students in the transition from home to college and college work, allowing them to become independent and to develop life-long strategies for independent management of their disability and lifestyles as they enter the work force.
Typical Activities
<ul style="list-style-type: none">• Serving as the official institution/agency office and mediator that assist students in acquiring classroom and other accommodations, as necessary.• Working with the institutions to ensure that student with disabilities have equal access to all areas, including libraries, food services, computer labs and other areas with technology, and other facilities.• Informing and making the campus community aware of the need to include people with disabilities in all programs, services and activities.• Acting as the institutional ages to inform the community about access issues.• Arranging for interpreter/signers for deaf students.• Arranging for note-takers, readers and volunteer books-on-tape readers.• Arranging for appropriate alternative student academic assessment and examination methodologies• Assisting students in acquiring alternative formats of classroom materials (Braille, audio textbooks, and large-print text).• Providing individual counseling and assistance for disabled students from matriculation through graduation.• Managing the budget that provides for all classroom accommodations.• Providing leadership in assessing existing and new space/facilities to determine compliance with accessibility criteria and standards set by government units and the institution.
<p>(IASAS, 2001 p. 39)</p>

Table 15

Dining Services

Purpose/functions

- To provide regular meals for students living on campus or in the community.
- To provide various forms of food service for other members of the campus community, (e.g., faculty, staff, and alumni, and their guests).
- To provide food service options, e.g., snacks, beverages, and carryout items.
- To provide clean, safe, quiet, efficient facilities and for the delivery of food services of all kinds at convenient times and places.
- To take into consideration the nutritional value of the foods being served and providing the customer with quality nutritional and consumer information.
- To provide quality food service at a reasonable price.

Typical Activities

- Serving regular daily meal service for students.
- Serving snacks, beverages, and other food items.
- Teaching students and other customers about nutrition and food preparation.
- Involving students in the decision-making process about food service, (e.g., menu selection, placement of food containers, types of beverages, hours of operation and presentation of food).
- Developing food services budgets and expenditure records.
- Hiring, training, and evaluating student and regular employees.
- Evaluating all food services with input from students and other customers.

(IASAS, 2001 p. 39)

Table 16a

Chaplaincy/Multi-faith Services

Purpose/function

- To identify core groups of students and faculty interested in exercising their religious freedom.
- To provide an opportunity for individual students to live, share, and express their faith as appropriate.
- To assist individual members of specific communities (students, professors, or support personnel in the quest for spiritual life).
- To provide advice and assistance to the educational community at times of celebration and mourning.
- To encourage and nurture the development of a sense of shared community.
- To work with student groups in providing opportunities for personal, community and spiritual enrichment.
- To promote understanding and acceptance, within the educational community, of the varied personal paths to spiritual enlightenment.
- To create an atmosphere of religious tolerance and co-operation.
- To minister to the students of the Chaplain's own faith as well as support to student

(IASAS, 2001 p. 34)

Table 16b

Chaplaincy/Multi-faith Services

Typical Activities

- Designing and implementing various spiritual and religious based seminars, workshops and lectures.
- Providing facilities for members of the campus community to workshop and share their religious customs and ideas.
- Organizing interfaith or ecumenical services.
- Counseling individuals seeking spiritual guidance.
- Organizing or making available appropriate liturgies and ceremonies to satisfy the spiritual needs of members of the educational community.
- Providing spiritual support and counseling, individual and in groups, to those in personal crisis.
- In multi-faith settings, coordinating the activities and events of the various religious communities.
- Organizing events and activities promoting spiritual life on campus.
- Acting as the first point of campus contact for all faith groups.
- Arranging services relevant to the Chaplain's own faith.
- Facilitating services for other faith groups by inviting their leaders on campus.
- Encouraging both specific faith-based and inter-faith dialogue by organizing social events and discussion groups.
- Raising awareness of faith and inter-faith center, if one exists, or helping students find appropriate rooms if no such center exists.

(IASAS, 2001 p 34)

Table 17a

New Student Programs and Services (Orientation)

Purpose/ function
<ul style="list-style-type: none">• To facilitate the transition of all new students, first-year, transfer, and graduate students, into the institution.• To assist new students in understanding the purposes of higher education and the mission of the institution• To prepare new students for the institution's educational opportunities.• To initiate the integration of new students into the intellectual, cultural, and social climate of the institution.• To prepare students for the diverse campus environment they will encounter.• To assist new students in understanding their academic responsibilities.• To provide new students with information about academic policies, procedures, and programs so they can make well-informed choices.• To inform new students about the availability of services and programs.• To assist new students in becoming familiar with campus/local environments.• To provide new students with information/opportunities for self-assessment.• To provide relevant orientation information and activities to the new students' primary support groups (e.g., parents, guardians, spouses, and children).• To improve student retention by providing a clear and cogent introduction to the institution's academic community.• To provide orientation programs for parents of students. <p>(IASAS, 2001 P. 44)</p>

Table 17b

New Student Programs and Services (Orientation)

Typical Activities

- Explaining the overall purpose of higher education and how this general purpose translates to the institution they are attending.
- Explaining faculty, staff, and student roles, responsibilities, and expectations,
- Describing the expectations of students in regard to scholarship, integrity, conduct, financial obligations, and ethical use of technology.
- Providing information clarifying relevant administrative policies /procedures.
- Explaining class scheduling and registration processes and providing assistance from qualified faculty, staff, or peer academic advisors for developing educational plans.
- Assisting students in utilizing course placement exams, interest inventories, and study skills assessments in selecting a major and appropriate courses.
- Identifying appropriate referral resources, such as counselors and advisors, and providing information about relevant services and programs.
- Providing new students with personal health and safety information.
- Providing social and informational programs for parents of new students.
- Providing opportunities for new students to interact with faculty and staff.
- Providing information about the physical layout of the campus including the location of key offices and functions.
- Providing opportunities for new students to interact with continuing students to develop a sense of identification with and belonging to the institution.
- Attending to the needs of sub-groups, e.g., students with disabilities, athletes, adult, LGBT, multicultural, international, and honor students.
- Employing a diverse staff to reflect the diversity of the campus student population, to ensure the existence of identifiable role models for students that enrich the campus community.

(IASAS, 2001 p. 44)

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