Healthy Ball State Now

An Honors Thesis (HONRS 499)

by

Christine Furtner

Thesis Advisor
Betty York

Signed

Ball State University
Muncie, Indiana

July 2013

Expected Date of Graduation
May 2013
Abstract

The goal of this thesis is to analyze existing data in order to determine the most important community health needs of the undergraduate university student. Through secondary research into university life, a picture of the needs of the college population was achieved. The areas of need were then categorized into broader, more generalized categories, which were ranked based on the immediacy, preventability, threat, and ability to intervene for each category.
Healthy Ball State Now: An Honors Thesis

April 30, 2013

Christine Furtner

Ball State University
Introduction

Community health, or public health, is a poorly understood concept in the general population. Simply put, public health is the process of preventing disease from occurring, prolonging life, and promoting health. This promotion can occur through an ordered effort performed by the entire population in the context of a community, or by a government's or private company's efforts. Community health encompasses everything from smoking laws to education reform, and from an exercise campaign to mental health promotion (Nies and McEwan, 2011).

Generally, when people think of community health, they think of it in the context of a country, a state, or a city. People do not think of the university setting as an arena of community health that needs addressing, but it is. The community health needs of young adults in the United States are crucially important, and the college environment provides a great medium for communicating and achieving many public health goals in this population. Further, by intervening in the population of college students, individuals can be set up for healthy lifestyles during the course of their lives, thereby reducing the need for community health interventions in the future.

Ball State University is one such college community in which public health interventions can be realized. With the help of the officials, professors, and campus leaders at Ball State University, undergraduate students can begin to lead healthier lifestyles and improve their well-being. This task cannot begin to be realized until more research is completed into the public health needs of university students as a whole. From there, a picture of where the community is in terms of needs of the collegian can be determined, and a trajectory determined.
The goal of this thesis is to analyze existing data in order to determine the most important community health needs of the undergraduate university student. Through secondary research into university life, a picture of the needs of the college population was achieved. The areas of need were then categorized into broader, more generalized categories, which were ranked based on the immediacy, preventability, threat, and ability to intervene for each category.

Demographics of Ball State University

In order to research the public health needs of the undergraduate students, one first needs to examine the make-up of the population. There are 16,652 total undergraduate students at Ball State University. Approximately 57% of that population is female (N=9494) and the remaining 43% is male (N=7158). Almost 90% are Indiana residents (89.7%; N=14935) (Office of Director of Systems Technology, “Enrollment by Gender and Residency”, 2012). The age of the population is divided into three cohorts. 33.8% of the population is between the ages of 17 and 19 (N=5637), 60.8% of the population is between ages 20 and 25 (N=10126), and 5.2% is over age 25 (N=866). The remaining 23 students are of unknown age (Office of Director of Systems Technology, “Enrollment by Age”, 2012).

Ball State University has identified several ethnic and race groups in the student population. The vast majority of students are Caucasian (N=13936), but the remaining 11.9% of the population identify with a minority group. 1,061 (6.4%) are African-American, 142 (0.8%) are Asian American, 487 (2.9%) are Hispanic, 22 (0.1%) are Native American, and 15 (0.1%) are Pacific Islander. A further 260 (1.5%) undergraduates identify as belonging to more than one group. Ball State also has a very active international student population, and 374 (2.2%) students are nonresident aliens. 355 (2.1%) students are listed as unknown (Office of Director of Systems Technology, “Enrollment by Race” 2012).
Rationale of the Prioritization of Objectives

Four major public health objectives have been isolated in research for university students. They are further broken down into relevant subcategories that are specifically important for college students. The priorities are mental health, injury and violence, communicable diseases, and healthy bodies.

The top priority is mental health. Mental health was selected as the highest priority, because the stressors of college can cause significant impairment in the functioning of students. Further, problems in this category can lead to problems in the other areas. For example, depression can lead to inactivity, and substance use can lead to injury. The subtopics covered in this section are stress, depression and suicide, eating disorders, and substance abuse.

The second priority is given to the objective of injury and violence prevention. It is given a high priority listing because injury is often caused by a particular individual, so the problem can be treated directly at the source. Further, education and resources make the injury very avoidable. The subtopics covered under injury and violence prevention are drunken driving, intimate partner violence, and sexual assault.

The third priority addressed is communicable diseases. The problem of communicable diseases is very significant on a college campus, where there are many individuals residing and spending time in close quarters. It is given a lower priority because it is difficult for many diseases to be stopped because of the herd effect. Subtopics covered include commonly spread diseases and sexually transmitted diseases.

The final priority is healthy bodies. It is listed in the top four priorities as a healthy body is important for maintaining a full life. It is listed as the lowest of the four because most universities have spent significant resources on this issue already, and it would be even more
costly to effectively control the health of individuals. Subtopics included in this section are nutrition, inactivity, smoking, and alcohol use.

**Objective 1: Mental Health**

The collegiate years serve as a starting point for many mental health concerns. Anxiety can severely increase in college students as they adjust to university life. When a student has inadequate social, personal, and academic support, they may fail to cope with the new challenges. This inability to cope with change may act as a catalyst, thus spurring on mental health concerns (Brandy, 2011).

In recent years, there has been a surge in research investigating mental health in young adulthood, particularly among college age students. This is due to an increase in students desiring access to mental health services. In the past twenty years, reported rates of depression have doubled and suicidal students have tripled (Bullis and Zimmerman, n.d.). A study also found that 90% of counseling centers on university campuses have noticed an increase in both number and severity of students seeking mental health services (Franklin, 2009). Further, studies have shown that as many as 12-18% of college students have a diagnosable mental illness (Lee et.al, 2009).

**Stress**

Stress is a universal human experience, but it is felt particularly by young college students. As stated earlier, many factors contribute to the stress of college, including a new level of self-sufficiency, difficult classes, financial insecurities, added responsibilities, and being away from home. Non-traditional college students also have stressors of adding to current levels of responsibility and managing their family during schooling (BSU Counseling Center, 2013).
Stress in college students is on the rise. According to a recent study done by the Higher Education Research Institute (HERI), the percentage of freshmen who perceived high levels of stress is at an all time high. The study also found that women reported feeling overwhelmed significantly more frequently than men did, with a ratio of more than 2:1 (Pryor et al., 2012). Although stress is at an all time high, stress tolerance is at an all time low. Bland and colleagues (2012) found that several stress-management strategies that millennial college students employ are avoidance of tasks, such as use of social media, eating, shopping, using substances, and tidying up. Though students use these techniques to decrease stress, the study shows that these mechanisms lower one’s ability to tolerate stress (Bland et al., 2012).

Stress at the university level is associated with poor outcomes in many areas. Stress can have a significant effect on health. An inability to cope with stress over time can lead to anxiety, depression, anorexia, and other mental disorders. If specific body systems are not able to maintain the stress response over a prolonged period of stress, one might have negative outcomes in terms of physical health. The body will become more prone to infections, experience insulin resistance and subsequent diabetes, or may develop hypertension, asthma, or blood clots (Varcolis and Halter, 2010).

Perhaps one of the best-perceived signs of stress is sleep disturbances. According to the American College Health Association (ACHA), only 4% of all college students reported waking up feeling very rested every day of the week, and most (58.4%) of students report feeling well-rested less than half of the days in the week. 42.1% of students also reported that daytime sleepiness was a medium, big, or very big problem for them (ACHA, 2011).

Depression and Suicide
The most visible mental health concern among the population of college students is depression. Major Depressive Disorder is characterized by clinically significant distress and impairment of important areas of functioning such as social and occupational functioning (Varcolis and Halter, 2010). According to the ACHA (2011), 18.2% of all college students have been diagnosed with depression. As it is such a predominant mental health concern, universities tend to focus most of their mental health resources on it. In 2011, 54.2% of college students reported receiving information on depression and/or anxiety from their university (ACHA, 2011). Ball State also has invested a lot of time and money in addressing the needs of depressed students. It is easy to access information, resources, and techniques for working through depression and depressive episodes.

Even though depression is the focal point of mental health concerns on campuses across the nation, the problem is still under-addressed. Though about 20% of students on university campuses have been diagnosed with depression by a licensed professional, 31.8% of students self-reported that in the past year they were so depressed that “it was difficult to function” (ACHA, 2011). This discrepancy indicates that 13.6% of students may have undiagnosed or untreated depression. Furthermore, 3.1% of students report taking prescription antidepressant medications that were not prescribed to them (ACHA, 2011). People who self treat do not have medical supervision and are not receiving counseling from professionals who can identify suicidality or potential for violence that may be side effects of these medications.

The ACHA (2011) has also found that 18.9% of college students have seriously considered suicide at some point, indicating that at least 3% of all suicidal students have never been diagnosed with MDD. Another 6.7% of students have attempted suicide at some point in their lives. These statistics on MDD and suicidal tendencies are reflected by a lack of knowledge
and a desire for more information by university students. 48.5% of students report a desire to receive more information on depression, and 35.3% would like more information on suicide prevention.

Eating Disorders

According to Erikson’s theory of development, individuals participating in the traditional college begin experiencing an internal conflict of intimacy versus isolation, which means that their primary concern is investing in relationships, and in particular finding a romantic partner. Though this conflict can cause many concerns for the health of college individuals, one that is most visible is eating disorders. The leading theory of eating disorders is biological in nature and proposes that inside of a sex there is competition for attractiveness that will lead individuals of the sex to eat more or less in order to optimize their appeal (Abed et al. 2011). Furthermore, social pressures to maintain fitness in certain groups such as athletes and sorority women, a high level of stress and anxiety, and ready availability of food pose further risks for disordered eating in college students. Thus the rate of college students with an eating disorder many be as high as 5.3% (ACHA, 2011).

Though the incidence of eating disorders is low at only two to four percent of the general population, it has recently become a priority in adolescent mental health (Miller, 2006). However, this trend is not reflected at the university level, even though men and women entering college are at the age of highest risk for developing an eating disorder. The ACHA (2011) found that 38% of students reported receiving materials about preventing and identifying signs of eating disorders (ACHA, 2011). Further, as many as 35-45% of women report that they believe that they are “fat” and/or would like to lose weight, and that number is on the rise, constituting a significant and increasing risk to the university student (Miller, 2006).
Like in many mental health concerns, the primary individuals who can affect those with eating disorders are those that surround them. Hoffman et al. (2011) found that though the majority of students feel that they can help friends with eating disorders, a large portion lacked the confidence to approach their friends about the issue.

**Substance Abuse**

Drug use is a significant problem on college campuses, as it is in the general population. Many experts tie drug use to a mental health deficiency, and the American Psychiatric Association is currently classifying it as a mental disorder. And as is true for many other mental disorders, the highest risk populations are young adults. The largest population of drug users in the United States are those between ages 18 and 20. 23.8% of people this age report use of illicit drugs in the past month (NIDA, 2012). Though the rate of illicit drug use has stagnated in recent years, the rate of prescription drug abuse has increased. As many as 15.5% of people between the ages of 15 and 25 report that they abused or misused pharmaceuticals in the past month (National Survey on Drug Use and Health, 2013).

Fortunately, the college environment can act as a protective buffer for drug abuse, as many young adults who are high risk populations do not attend college. However, drug abuse is still a significant problem on college campuses. In terms of illicit drug abuse, 35.7% of students report having used marijuana at some point, 5% have used cocaine, 5.6% have used hallucinogens, and another 5.6% have used ecstasy. In terms of pharmaceutical abuse, in the past 12 months, 7.9% of students reported using prescription pain killers not prescribed to them, 4.2% reported using sedatives not prescribed to them, and 8.5% reported using stimulants not prescribed to them (ACHA, 2011).

*Objective 2: Injury and Violence Prevention*
Injury prevention has become a major issue on college campuses. Though most injuries are unavoidable, many students fail to take basic precautions for their safety. The ACHA (2011) found that 22.6% of students fail to always wear seatbelts in a car. Further, only 20% of students always wear a helmet when riding a bicycle. The survey also found that 61.9% of students did not receive any information on injury prevention from their college (ACHA, 2011).

On college campuses across the United States, violence is on the rise. In the period from 2000 through 2004, the number of crimes perpetrated by college-age students increased by 77% (Noonan and Vavra, 2007). In the past year, 7.1% of students report getting into a fight and 4.4% report being assaulted (ACHA, 2011). Further, the severity of violence on college campuses has been increasing drastically. Two-thirds of all the campus attacks that occurred in the past 113 years, such as the Virginia Tech massacre, happened after the year 1990 (Drysdale et al, 2010).

**Drunk Driving**

Crimes are just one of the many ways that injury and violence constitute a significant problem on college campuses. Driving under the influence of alcohol or other substances remains a significant problem. In 2010, the rate of fatalities for impaired driving was highest in the 21-24 year old age range, which is college-aged (NHTSA, 2012). However, 3.36 million college students over seven years self-report driving while intoxicated, which averages to 480,000 students annually (College Drinking, 2013).

Fortunately, the overall rate of impaired driving is on the decline. In 2002, 14.2% of the population aged 12 or over self reported driving while impaired in the past year, compared to 11.4% in 2010 (SAMHSA, 2011). The problem is not eradicated from college campuses,
however. According to the ACHA (2011), 13.7% of college students admit that in the past 30 days they drove after consuming alcohol.

**Intimate Partner Violence**

Intimate partner violence (IPV) is any type of violence (physical, sexual, or emotional) perpetrated by an individual who has a physically or emotionally intimate relationship with another person. IPV is a problem because it is one of the most prevalent and often least visible forms of violence in the United States. Predicting the incidence of IPV is very difficult, because reporting is dependent upon the victim of the violence. Experts estimate that just more than one third of all women (35.6%) are victims of IPV in the form of rape, physical violence, or stalking at some point during their life, and more than a quarter of all men (28.5%) have been a victim in the same forms during their life. It is also estimated that 1 in 10 women will be raped by a partner at sometime in their life. (Black et.al, 2011).

College students are at high risk for experiencing or perpetrating IPV because IPV is more commonly perpetrated in dating relationships. Further, the college environment makes it easy for people to obtain personal information about intended victims of stalking (Melander, 2010). Just under half (47.1%) of all female victims of IPV will first experience IPV between the ages of 18 and 24, and 38.6% of male victims will first experience IPV during those years (Black et.al, 2011). The overall rate of IPV during the college years is also difficult to predict because of underreporting. It is estimated that as many as 47% of all college students will experience IPV (Melander, 2010).

IPV can have a lasting impact on all victims. 72.2% of all female victims of IPV have a lasting fearfulness, 62.3% report being concerned for their safety, and 62.6% acquire post-traumatic stress disorder symptoms. Further, a history of IPV leaves a victim at higher risk for
many physiological complaints, such as sleep disturbances, asthma, irritable bowel syndrome, frequent headaches, chronic pain, and activity limitations (Black et al, 2011)

**Sexual Assault**

To a lesser degree sexual assault is a problem on college campuses. Though most cases of unwanted touching and rape are performed in the context of a relationship, there are approximately 208,000 cases of sexual assault by non-partners annually (RAINN, n.d.). Five percent of adults of both sexes report being victims of non-rape assaults during their adult life. 13% of women and 6% of men report experiencing unwanted sexual coercion at some point as well (CDC, “Sexual Violence”, 2012)

On college campuses, the rate of sexual assault is higher than in the rest of the adult population. This disparity is related to the fact that drugs and alcohol play a major role in many assault situations, and alcohol is readily available on college campuses. Nearly one in five (19%) of all college females report being victims of sexual assault or harassment during their college career (CDC, 2012). Further, 6.5% of all college students report being victims of sexual assault in the past year (ACHA, 2011)

**Objective 3: Communicable Diseases**

Communicable disease is any disease that is spreadable and transmissible from person to person by direct or indirect contact. The diseases are easily spread due to the nature of the college campus. Closed quarters in dormitories, a large population in the dining halls, and clustered classrooms make contact with infections unavoidable. Unhealthy selections in cafeterias, a decrease in access to drinking water supply, and pressure to stay up late all lead to a decreased immune system (Boston Children’s Hospital, 2013). Sexually transmitted diseases are
also very common in the college population due to a lack of education and several other factors in the college population (Gore, 2012)

**Common Diseases**

Many diseases such as the cold, influenza, and mononucleosis abound on college campuses. Because of the environment created on college campuses, the rate of infections in the college environment is higher than that of the general population of the same age range. 11.4% of students were treated for strep throat in the past year, 18.5% were treated for a sinus infection, 2.2% were treated for mononucleosis, 6.7% were treated for bronchitis, and 7.5 were treated for an ear infection (ACHA, 2011).

Though closed quarters and poor immune support play the most significant roles in the prevention of communicable diseases, there are other factors that affect the infection rates in college campuses. The first is education. According to the ACHA (2011), 40% of college students say they have not received materials on preventing the cold, flu, or sore throat. Another 42% of college students would like to receive information from the university about preventing those diseases. Another important factor is vaccinations. Over half (52.8%) of students have never received a vaccination for the flu (ACHA, 2011).

Pandemics can be a significant problem on college campuses. In 2009 during the H1N1 pandemic, the majority of infections in the United States occurred on college campuses. The number of infected college students doubled within the week of August 29th through September 4th, which was one of the weeks that fall classes started at many college campuses. The infection peaked with a maximum attack rate of 29 per 10,000 weekly (ACHA, 2010). Most universities have protocols to be followed in the event of future pandemics or heavy infection seasons.

**Sexually Transmitted Infections**
Diseases that are spread through sexual intercourse or sexual contact are very prevalent on college campuses across the United States. Approximately 25% of all university students have been diagnosed with a sexually transmitted disease (STD) (Gore, 2012). Further, almost half of the 19 million new cases of STDs in the United States annually occur in the 15- through 24-year-old age range (Cordova et al, 2011).

Part of the disease rates can be attributed to physiological factors, such as cervical ectopy (Cordova et al, 2011); however, the rates can also be attributed to education. A lack of understanding in the transmission of STDs, a belief that no symptoms means that one is cured, a belief that birth control pills do not prevent infection, and failure to use appropriate barrier protection during all sexual encounters are all prevalent problems on college campuses (Gore, 2012). 40.6% of students have not received education from their college or university on STD prevention, and another 40.7% would like such material from the university (ACHA, 2011).

A special area of consideration in terms of STDs is the gay, lesbian, bisexual, and transgender (GLBT) community. Men who have sex with men (MSM) and women who have sex with women (WSW) have separate risk factors and disease incidence rates than those in the heterosexual population. In MSM populations, a higher number of sexual partners and a lack of barrier use has attributed to higher lifetime risk for STDs. In recent years, the number of men in the MSM category who also have relations with females is increasing, which has led to an increase in the incidence of STDs in both the MSM and heterosexual communities (Cordova et al, 2011). Contrary to common belief, those in the WSW population are at risk for acquiring STDs through exchange of cervicovaginal fluid and direct mucosal contact. This susceptibility can cause risk due to more sexual partners and asymptomy even when the disease is active.
Common diseases for WSW include bacterial vaginosis, trichomoniasis, genital herpes, papilloma virus, and HIV (Marrazzo et al, 2005).

**Objective 4: Healthy bodies**

The dreaded freshman 15 is one of the many issues that plague students entering college, but diet is not the only problem that threatens the physical health of college students. Improper diet, lack of exercise, smoking, and binge drinking constitute important problems for the university to address. Failure to reverse any of these behaviors can cause significant health problems later on in life. Heart disease is linked with obesity and smoking. Lung disease is linked to smoking and inactivity. Liver and other metabolic disorders are linked to drinking and obesity (Sommers et al, 2012). By addressing the individual risk factors, a person can effectively decrease his or her risk for problems down the road.

**Diet and Nutrition**

Across the board, Americans have problems with maintaining a healthy diet. As the calorie counts and amount of processing foods go through increases, so do American’s waist measurements. In 2010, 35.7% of the adults in the United States were obese. The college age population was not too far behind with an obesity rate of 32.6% (Ogden et al, 2012). It is also not hard to believe that almost 40% (39.2%) of all college students are dieting to lose weight (ACHA, 2011)

Proper nutrition is critically important in college students, because it is the time that young adults will develop eating habits that will stick with them for the rest of their lives. Many students choose to eat in the cafeterias or in social situations, and the types of food that are easily available in these situations are generally too high in fats or carbohydrates and are significantly lacking in micronutrients, or vitamins and minerals. When it comes to failure to choose healthy
options, many students also cite lack of time for healthy meals, inability to pay for healthy options, a dislike for healthy foods, and no desire to change their habits (Troncoso et.al, 2011).

A lack of education can also be attributed to the problem. Researchers have found that college students look at the nutrition information of a product when they are doing so for health reasons, to lose weight, but they fail to read them in order to calculate a balanced diet and when they do not know how (Raspberry et.al, 2007). 41.2% of students also report that they have not received material on how to eat healthily from their university, and that 60.9% are still interested in material on eating well (ACHA, 2011).

Exercise

Exercise is very important for the human body. The Department of Health and Human Services recommends getting at least 2.5 hours of moderate aerobic activity, or five 30 minute sessions, weekly, in addition to two sessions of weight training weekly (CDC, 2011). Most Americans fall very short of this goal, and college students are no exception. With heavy class loads, extracurricular activities, and social engagements, many students feel that they have no time or energy left for exercise (Ebben and Brudzynski, 2008). Further, as time in college goes on, students work out less, perhaps due to burnout with exercise routines, more commitments to things other than their workout routine, or an increase in overall course difficulty or demand. Studies have shown that students with higher class standing and increased age work out less than their younger, freshman counterparts (Mazerat et.al, 2011)

Studies have shown over and over that there are multiple benefits to exercise. Regular physical activity not only helps maintain weight and reduce risk of disease, but it also can elevate mood, increase energy by boosting metabolism, and improve focus (Mayo Clinic, n.d.). It can also decrease stress levels, reverse some of the effects of depression, and increase body image.
Finally, by creating new connections between a person's brain cells, exercise can improve learning in college students (Kotz and Haupt, n.d.).

Even with all of the benefits of exercise, the number one reason that college students do not work out is a lack of motivation; they do not want to work out. Part of the reason that students do not want to work out may be related to the technological age that students live in. With all the data and entertainment available at their fingertips, it is no surprise that college students lack motivation to leave their laptops and hit the gym. Studies have shown that spending more time on the computer is positively correlated with decreased activity levels (Fotheringham et al., 2000).

Smoking and Alcohol Use

Though eating right and working out are critically important for college students, smoking cessation and alcohol moderation are also important topics when it comes to student health. Smoking is a risk factor for heart disease, lung disease, and many types of cancers (Sommers et al., 2012). Even though smoking is known to cause such problems, smoking is still a very prevalent issue on college campuses, with more than 20% of people between the ages of 18 and 24 being smokers (CDC, "Adult Cigarette Smoking", 2012).

Social smoking is a recent phenomenon in which a person primarily smokes in certain situations and with certain people. They do not smoke due to a physiologic need for nicotine, but rather to pass time with enjoyable company. Approximately two thirds of all college student smokers are social smokers. These individuals typically do not label themselves as smokers, but the health consequences are still the same for them as with a non-social smoker. Further, though non-social smokers understand their risks and often express a desire to quit, the social smokers do not understand their risks and do not feel that they need to quit (Waters et al., 2006).
After tobacco, alcohol is the most commonly abused drug on college campuses. 14.7% of students reported using alcohol 10 or more of the past 30 days, and 4.7% reported drinking more than 10 drinks the last time they socialized (ACHA, 2011. Further, 31% of all college students meet the criteria for alcohol abuse, and another 6% meet the criteria for alcohol dependence (College Drinking, 2013).

*Significance for the University*

Though most college students are well adjusted and do not experience more than one or two of the problems individually, they still pose a significant predicament to the university as a whole. High costs can be incurred by the university due to these public health concerns. Further, the costs to intervene once problems occur are significantly higher than that of the cost to prevent them from occurring in the first place. Studies have shown that poor adjustment to college life resulting in these problems can cause poor academic performance, decreased student retention, and lack of safety on campus.

**Academic Performance**

It should come as no surprise that student health concerns can have a significant impact on grades. Stress and anxiety caused significant disruption to college students, with nearly 30% saying that stress affected their performance and over 20% of students saying anxiety affected their performance in one or more classes. 21.2% said that sleep disturbances had an impact on their academic performance. 18% said that common infections, such as the cold, influenza, and sore throats affected their grades. Almost 5% of all college students say that drinking alcohol had an impact on their course performance (ACHA, 2011).
Another 12.4% cited depression as a source of academic problems (ACHA, 2011). Depression is associated with a GPA lower than the university average. The severity of depressive symptoms is positively correlated to decreased grades (Deroma, 2009).

Grades represent a significant point in terms of costs for the university. A student who fails a course due to a community health concern may be forced to take an extra semester before graduating, especially in rigidly structured programs. Taking an extra semester before graduation incurs significant costs for taxpayers and institutions for these students to complete their requirements (ICHE, 2012). Ball State’s four year graduation rate is only at 44%, meaning that over half of the students at Ball State fail to complete their degree within four years (BSU OIE, 2012).

Further, there is a significant cost to the student. In the past 10 years tuition rates have doubled, and inflation for tuition and fees have increased 100 times more than the rate of growth for household income. The average student in Indiana has to borrow $27,000 to fund a degree, or an average of $6,750 annually (ICHE, 2012)

Retention Rates

The rate of college students dropping out can be attributed to a number of things, but the concerns outlined here are among the most important and most preventable reasons. The primary reason for “dropping out” of school is a lack of self-efficacy, which is a measurement of how a person views his or her own ability to complete tasks and accomplish goals. Low self-efficacy is positively correlated with leaving the university setting. Self efficacy is determined by a number of factors, including social support, difficulty of task or goal, and success of others. If a task is difficult, a student does not have the support of friends or family, and others around
them fail or are too successful, they experience high levels of stress. This stress can become too overwhelming, leading students to drop out (DeWitz et al., 2009).

Self-efficacy is not the only reason students choose to leave the university. Depression can cause feelings of avolition, or a lack of desire to do anything, and therefore have less feelings of commitment to academic obligations. Students who experience these symptoms are 3.7 times more likely to drop out of college than those that do not (Mudric, 2012). The number one drug that predicts high risk for dropping out is alcohol use (Wickline, 2012). Intimate partner violence can also predict college drop outs when the perpetrator was an acquaintance or attended the same college (UoL, n.d.)

Though grades constitute a significant problem for the university, retention rates are even more significant. When a student drops out, the first thing that the university losses annually is the tuition and fees that student would have spent at that university. This cost at Ball State totals to more than $9,000 per student per every year that they would have spent at Ball State (BSU Bursar, 2012). With 20% of all students leaving the university within the first year, and then another 10% of the original number leaving within their second, this cost adds up quickly for the university (BSU OIE, 2012).

It also costs the government a significant amount in taxes. Indiana loses approximately 16.6 million dollars every year in federal and state taxes due to college student drop outs (Schneider and Yin, 2011). This loss costs the university funding, and it costs the taxpayers whose income went to benefitting these students.

Student Safety

Safety is a very important concern for college students and the university. For some of these areas, the threats are very clear. Violence can cause injury to students, suicide attempts can
result in death, and intoxicated people can threaten others. However, some of these threats are
less clear. Stressed students are more likely to feel unsafe on campus. Improper eating habits can
result in physiological problems that can place students in danger of heart disease and diabetes
(Sommers et. al, 2012).

Students generally report feeling very safe on campus during the daytime. At night, however, only 37.7% of students report that they feel very safe. The areas immediately surrounding campus pose a perceived threat to student safety as well. Only 58% of all college students report feeling very safe in the areas surrounding campus during the daytime, and that number drops to 21.9% at nighttime (ACHA, 2011). A lack of safety in the areas surrounding campus is significant because many students live in these areas.

*Important Interventions*

Counseling services have been shown to significantly impact the college experience, especially in the first year of college. During the first year, students have the most adjusting to accomplish as they acclimate to the independence, distance from home, and acclimating to the college environment. The freshman population has the highest ratio of students who have feelings of worthlessness, loneliness, sleep and appetite disturbances, and suicidal thoughts compared to any other class. Identification of high risk students and intervention through regular counseling is essential to preventing anxiety and depression in this population. Further, students in the high risk population who attended counseling demonstrated increase in their GPA and fewer students in the group left the university (Lee et.al, 2009).

Education is also a crucial intervention needed at Ball State. As demonstrated previously, students do not feel that they have adequate education on most of the topics covered in the objectives. Education is considered the key to preventing problems. If students are
properly taught how to identify problems in themselves and in others, students will feel more empowered to make a change. Passive programming through bulletin boards and table tents may prove to be effective tools, as well as having speakers in dormitories and classrooms.

Interventions to improve the health status of students are also vital to the well-being of students. Offering healthier meal options, calorie counts, and increasing the prices on junk food can improve the dietary habits of students who eat in the cafeterias. Creating events that promote exercise or encouraging students to audit a physical education course can increase the activity level of college students. Smoking cessation accountability groups can help those who want to quit, and creating a smoke-free campus that has clear consequences for violators can motivate smokers to quit and clear the air for non-smokers.

Conclusion

Community health is considered to be both a science and an art. It is a science because it requires an extensive knowledge base of the community, its needs, and what to do. With the objectives presented, one can gather the necessary information needed to create and impact a change in the health status of the undergraduate collegian. By examining the data that is available, further interventions and outcomes can be selected by those with the ability to intervene to promote the health and well-being of undergraduate students in the population.

The art portion is a consideration of the skills, dedication, and passion that those who wish to achieve an objective place in the project. However, it cannot be done by one person. Community health is always achieved through an “organized, community, effort” (Nies and McEwan, 2011). It needs to be completed by partnering with students, faculty, and university officials. By addressing these issues with the knowledge provided here, and through collaboration across the university, public health at Ball State University can be achieved.
References


College Drinking (2013). *A snapshot of annual high risk college drinking consequences.*


Indiana Commission for Higher Education “ICHE” (2012). *Reaching higher, achieving more*


