SCHOOL *of* GRADUATE STUDIES
EAST TENNESSEE STATE UNIVERSITY

East Tennessee State University
Digital Commons @ East Tennessee State University

Electronic Theses and Dissertations

Student Works

5-2012

Information, Organization, and Target Perceptions of Student Services for Community College Students

Benjamin Andrew Martin
East Tennessee State University

Follow this and additional works at: https://dc.etsu.edu/etd

Part of the Educational Sociology Commons

Recommended Citation

Information, Organization, and Target Perceptions of Student Services for Community

College Students

_____

A thesis

presented to

the faculty of the Department of Sociology

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Master of Arts in Sociology

_____

by

Benjamin A. Martin

May 2012

_____

Joseph O. Baker, Ph.D., Chair

Chris S. Dula, Ph.D.

William T. Dalton III, Ph.D.

Leslie McCallister, Ph.D.

Keywords: information, organization, perception, college students, student services

ABSTRACT

Information, Organization, and Target Perceptions of Student Services for Community

College Students

by

Benjamin A. Martin

This study addresses several research questions. First, it explores methods for organizing

information regarding health services so as to keep information accessibility at an optimal

level. Second, this project identifies student perceptions concerning accessibility and

organization of information about student services. This study also assesses students'

awareness of the available services. The study combined qualitative and quantitative

methodology, involving two distinct stages of data collection. Results suggest age

islargely unrelated to a belief schools should provide student services but positively

correlated with the knowledge of the location of student services. Nearly all student

serviceswere positively correlated with the use of services. For the most part, no group

differences were observed in the use of services. However, first-generation college

students seemed to be the best predictor of the use of student services. Content analysis

concluded that contemporary students primarily use internet resources to obtain student

services information.

CONTENTS

Chapter	Page

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Prevalence of Health Insurance

A recent poll conducted by the United States Census Bureau reported that the percentage of people without health insurance recently increased 1.3% in a single year as a proportion of the population, from 46.3 million in 2008 to 50.7 million in 2009 (U.S. Census Bureau 2010). Surprisingly, this is the first year since 1987 that the total number of uninsured Americans has increased (U.S. Census Bureau 2010). In turn, the number of Americans served by government health programs has increased. Moreover, it was reported that racial minorities were more likely to be without private insurance as compared to non-Hispanic whites (U.S. Census Bureau 2010). The U.S. government recently passed H.R. 3962 which requires insurance companies to allow children to stay on private family healthcare plans until age 26, requires employers to offer insurance to all full-time employees, and provides government subsidies to assist those who cannot afford private insurance. Though a potentially important legislative reform, it currently ignores part-time employees (a demographic the Census Bureau overlooked as well) and college students whose parents do not have private insurance policies to support them, as well as those who cannot afford deductibles (regardless of premium subsidies offered by the government).

College Student Health Concerns

College students' mental and physical health is an increasing concern among healthcare providers and researchers. For example, Yang and Chiou concluded that price

elasticity regarding certain foods can influence the purchasing decisions of undergraduates (2010). Given that many unhealthy foods are less expensive to produce, subsequently making them available at a lower cost to the consumer (Pollan 2006), undergraduates are more likely to engage in an unhealthy diet. Kitzrow (2009) focused on risk taking behaviors (i.e. prevalence of unprotected sex, drug use, and alcohol use) among college students. Furthermore, researchers such as Dalton and Czyzewski (2009) have studied the relationship between physical health (i.e. eating disorders) and behavior issues (i.e. rumination) concluding that rumination was not an outcome caused by gastroesophageal reflux. Still, other studies have identified a relationship between physical and/or sexual abuse and physical health symptoms among college students (Eadie, Runtz, and Spencer-Rodgers 2008; Tansill et al. 2012). This prompted professionals to call for institution administrators to "consider mental health needs a priority and provide adequate funding" (Kitzrow2009:654). More importantly, there has been a significant increase in the number of college students with mental health issues and the number of college students actively seeking mental health services (Kitzrow2009). According to the National Survey of Counseling Center Directors, 85 percent of directors polled reported an increase in "severe" psychological problems between 1996 and 2001 (Gallagher, Sysko, and Zhang 2001). More recent research has reported that 32 percent of college students are diagnosed with an "apparent" mental health problem (Eisenberg et al.2011). College students are increasingly seeking counseling services for issues such as self-injurious behavior, eating disorders, alcohol abuse, and sexual assault on campus, to name but a few (Gallagher et al.2000;

Kitzrow2009). As the number of college students without private insurance grows, more will need to rely on health services offered by their educational institutions.

Accessing Health Information

Recent research has focused on how college students' access health related information. For instance, Escoffery et al. (2005) confirmed the Internet to be an effective health-promotion channel for college students as the Internet enjoys virtually ubiquitous use on college campuses and by college students (Escoffery et al. 2005). Other researchers, such as Bates and colleagues (2006) stated that college students are more likely to use health services when information about them is available online. Hanauer and colleagues (2004) posited that the "digital divide" is closing, as the proportion of college students not using the Internet to access health related information shrank from 17 percent in 2000 to 3 percent in 2003. Additionally, Hanauer et al. concluded that searching for health related information on the Internet was significantly and positively related to educational attainment (2004). That is, people seeking post-secondary education are more likely to obtain health information through the Internet. Thissuggestsinstitutions of higher education have a responsibility to provide easy access to accurate information regarding their health services.

The current generation of college students has grown up with the Internet. Subsequently, many expect to be able to access the Internetas a part of their regular daily activities. Presumably college students would be more likely to turn to the Internet when searching for available student services. Unfortunately, no research exists assessing

which student services are more likely to be accessed as a function of information being available on the Internet. Some researchers have, however, investigated the level of credibility that college students attribute to online information (Metzger, Flanagin, and Zwarun 2003; Rieh and Hilligoss 2008). Shenton and Dixon (2004)concluded that young people tended to assess the value of an online source based on quantity of information instead of quality. Rieh and Hilligoss (2008) suggested adolescents and young adults turn to their classmates, roommates, or friends in order to assign a level of credibility to information they may have found. This may be directly related to the desire of an individual to share similar beliefs with others of the same education levels and social statuses (Harris and Dewdney 1994). This means the strategies of young adults in seeking information and deciding whether it is credible enough to use are strongly influenced by their peers. The level of accessibility to information may also contribute to the level of credibility associated with it.

College Student Services

Colleges offer a myriad of student services ranging from financial, to legal, to academic, to health-related. The way college students perceive these services strongly influences whether they are used (Rotimi, el-Dean, Freeman, and Lee 1986). For example, Wilcove and Sharp (1971) found that students' differential perceptions of counselors' role responsibilities influenced use of counseling center services. Such perceptions can focus on characteristics like quality of service, capability of provider, or credibility of the information provided about the service (Athiyaman 1997;Oldfield and

Baron 2000).In a study assessing perceptions of student support services on various campuses across the U. S., Kelley-Hall (2010) determined that students generally displayed positive attitudes regarding academic and career services but more negative opinions regarding student health services and diversity programs. Furthermore, Kelley-Hall identified a positive relationship between student perceptions of the services and peer support. That is, stronger connections made with others in a cohort resulted in a more positive attitude about and an increase in use of the service. This may be because word-of-mouth information was shared among peer groups about services provided by colleges.

Although much of the literature has been centered on college students' attitudes toward mental health services (Archer and Cooper 1998; Gallagher et al. 2000; Gallagher et al. 2001; Kitzrow2003; Stanley, Mallon, Bell, and Manthorpe 2010; Sue, Fujino, Hu, Takeuchi, and Zane 1991;Yamawaki 2010), some research has focused on student health services as a whole. Almost four decades ago, Comstock and Slome (1973) concluded that attitudes toward student health services were dependent on the availability and relative knowledge about the services.

Wellness has been defined in a variety of ways; most consider multiple components of a person. From a wellness perspective (as opposed to simply an absence of disease or pathology), body, mind, and spirit are integrated to improve the standard of living within all spheres (Smith, Myers, and Hensley 2002). In addition to direct physical healthcare, some institutions of higher education also offer nutrition programs, dieting

programs, and smoking cessation programs at student health clinics. However, while many universities offer student services such as career and mental health counseling, diversity programs, and student healthcare, community colleges seem to offer considerably less. This discrepancy reflects inherent differences in funding structures as well as with a rise in budget cuts for post-secondary schools in recent years.

In 2008, the Tennessee Board of Regents (TBR) began to focus on smoking cessation and weight loss programs in its wellness referendum for employees (TBR 2008). Unfortunately, the same initiative was not provided to TBR community college students. Despite the plummeting of overall smoking prevalence across the last 40 years (Centers for Disease Control and Prevention 2007), cigarettes still remain popular among adolescents and young adults (National Institute on Drug Abuse 2010). This is especially a concern in Tennessee where 23.1 percent of the adult population (18 years and older) currently smoke cigarettes (Centers for Disease Control and Prevention 2010). More importantly, adolescence and young adulthood are the years when most smoking addictions start (Wechsler et al. 1998).Furthermore, Tennessee does not provide any Medicaid coverage for counseling or medications aimed at reducing the prevalence of smoking (Centers for Disease Control and Prevention 2010). Likewise, the rapid increase in obesity rates in persons ages 18-29, has also become a major concern in the college population (Desai et al. 2008; Gow, Trace, and Mazzeo 2010; Mokdad et al. 2003). For example, according to the CDC, no U. S. state has an obesity rate less than 20 percent (2010). However, Tennessee is one of 12 states that have an obesity rate over 30 percent (CDC 2010). Ultimately, such high obesity rates can increase the likelihood of other

health concerns such as heart disease and Type II Diabetes (Lobstein, Baur, and Uauy 2004). Thus, smoking cessation and weight loss programs would be prime interventions to aim at the college-aged population, and higher education systems would be an ideal environment in which to deliver them. However, even if such programs were available through student health services, it is important to better understand how students access information about such issues and programs.

Group Differences in Perceptions and Use of Student Services

The epidemiology regarding the use of health services shows that women are more likely to use health services earlier in life, while men are more likely to use health services in later years (Mustard et al.1998); however, this may be due to a stronger correlation between age and mortality in men than women (Scitovsky 1994; Roos, Montgomery, and Roos 1987). Previous literature suggests differences in health issues (Mcyntire, Hunt, and Sweeting 1996), efforts to seek health services (Mustard et al. 1998), and even in the quality of health services provided to men and women (McKinlay 1996) may also underlie sex differences in physical health service use. Additionally, sex differences also exist in the use of mental health services. Most research on this topic shows women are more apt to use mental health services than men. For example, Leaf and Bruce (1987) found that, while stigma regarding the use of mental health services has been waning, women were still more likely to use these services although this may have more to do with help seeking behaviors than negative perceptions surrounding mental health services.

Previous research explains that first-generation college students were more likely to be of an ethnic minority and belong to a lower socioeconomic status (SES) group than those students whose parents had obtained at least a bachelor's degree (Bui 2002).Interestingly, according to the American Association of Community Colleges (AAAC), this demographic accounts for about 42 percent of the community college student population (2011). Research has shown that first generation college students work more hours than their counterparts, are more likely to live off campus, and participate in fewer social groups that are affiliated with their respective campus (Pascarella et al. 2004). Furthermore, they also maintain a lower GPA when compared to students whose parents obtained a post-secondary degree (Pascarella et al. 2004). This may be due to the lack of a support system in which effective study habits are taught and formed at a young age. Most importantly, Terenzini and colleagues outline the handicap that first generation college students experience when attempting to obtain information regarding student services in general (1996). For example, because of the lack of access to social capital, first generation college students report difficulties in accessing information necessary to make beneficial decisions regarding which institution to attend, which classes to take, and which student support services to use (Pascarella et al. 2004).

Since the 1970s, ethnic minority students have increased in predominately white colleges and universities in the United States (Green 1995). It has also been noted that 21 percent of black college students cite health reasons for dropping out of college (Sanford 1979), making effective communication regarding available health services critical for minority student retention. Furthermore, Balfanz (2007) reported that health problems

remains one of the top reasons for minority college student attrition. This idea was supported by William Boyd in his address to the National Trustee Workshop in which he stated, "…the key to minority student retention is not successful programs for the minority student but basic institutional changes that incorporate the growing demographic so as to render special programs unnecessary" (1982:98). The most recent census data reports a higher rate of uninsured students in the community college setting and a higher rate of minority student enrollment (U. S. Census Bureau 2010). Researchers have also reported more distrust among racial minorities toward the medical community than is typically reported by whites (Hanauer et al. 2004). Fox and Rainie (2000) reported that the Internet empowers minorities by supplementing the information obtained from medical professionals. With this in mind, it is imperative that student health administrators and staff ensure that students who could benefit from utilizing student services are learning about availability.

Availability of Information

Studies have shown that the availability of information affects the decision to use it (O'Reilly 1982; Porat and Haas 1969), but unrelated information may decrease the ability to use relevant information (Halpin, Streufert, and Lanham 1971; Manis, Fichman, and Platt 1978; O'Reilly 1982). This seems to be especially true for health services. A study conducted by Ware and Doyle (1977) identified availability and accessibility of health services information as important components for forming perceptions about the service. Rotimi and colleagues(1986) also concluded that the amount and availability of

information had a strong impact on whether college students rated student health services favorably. Other studies have also illustrated a link between lack of familiarity about student health services and lower levels of satisfaction (Mechanic and Greenley 1976;Moos and Dort1977).Detailed studies were conducted by Comstock and Slome (1973a, b), in which over 1,200 students from various post-secondary institutions identified various health problems they experienced and their opinions about the health services offered by the respective campuses. They concluded that level of familiarity with student health services was positively related to students' level of satisfaction with that service, which was also confirmed by later research (Hill 1995). Similar results were also more recently observed within an international student population at a U.S. campus (Russell, Thompson, and Rosenthal 2008).

This study seeks to accomplish two objectives. First, the current study attempts replicate the results of previous research such as commonalities of student services offered between community colleges, the relationship between age and use of college student services, sex and race differences regarding use of college student services, and the relationship between the perceived responsibility to offer student services and the propensity to use them. Based on available research, I assess the following hypotheses:

H1. Community colleges would share a commonality of key student service, overall.

H2. Age would be positively correlated with a) knowledge regarding the location of services, while being negatively correlated with b) the use of services.

H3. Student perceptions regarding the availability of student services will be related to whether they are being used.

H4. Minority students will use student services more than white students.

H5. Females will use student services more than males.

H6. Age would be positively correlated with the belief that schools have a responsibility to provide student services

The second objective seeks to contribute to existing literature by assessing the perception of college students regarding the responsibility to offer student services, effects of first generation college students on the use and perception of student services as well as the organization and availability of the information regarding college student services. Given there is currently no research assessing the organization and availability of student services, a model will be suggested from the results of the study. Based on available research, I assess the following hypotheses:

H7. Race and sex differences will exist in perceptions about whether colleges have a responsibility to provide student services, where a) minority students are predicted to be more likely than white students, and b) females are predicted to be more likely than males, to believe colleges have a responsibility to provide student services.

H8. Given the limited access to social capital, particularly family relationships, a) first generation college students are predicted to be less likely to use student services. Additionally, because first generation college students typically work longer hours than

their counterparts (thus suggesting full-time employment), b) they will be less likely to

believe that colleges have a responsibility to offer student services.

CHAPTER 2

METHOD

Participants

This study was conducted with college students at 13 regional community

colleges in Tennessee. Participants consisted of 3,154 undergraduates, 706 males (22.4

percent); 2,431 females (77.1 percent); and 17 participants (.5 percent) who did not

disclose sex. Ages of the participants ranged from 16 to 74 (*Mdn* = 28*SD* = 10.79). The

distribution of the age variable was positively skewed with most of the participants

falling in the lower part of the range. A total of 2,514participants (79.7 percent) described

themselves as White/Caucasian. A total of 386 (12.2 percent) identified as Black/African-

American and 86 (2.7 percent) identified as being Chicano/Latino/Hispanic. A total of 58

participants (1.8 percent) identified with being Bi-Racial/Multi-Racial. A total of 42 (1.3

percent) described themselves as South-East Asian/Pacific Islander, while 29 (0.9

percent) identified as Native American/Alaskan. Thirteen participants (0.4 percent)

identified as being African, 13 (0.4 percent) as Middle Eastern, and another 13 students

(0.4 percent) chose not to disclose their race[1]. In order to be able to more efficiently

---

[1]Concerning data preparation: A total of 4,455 participants filled out an online survey beyond the 7th item (age). To ensure validity, additional participants were deleted. Specifically, 101 (0.02%) participants who fit one or more of the following criteria were removed from the database:

  1) Took less than 4 minutes to complete the survey

  2) Filled out at less than 25% of the survey

  3) Filled in Race/Ethnicity with a variation of "Human" or with something inane (e.g., Extra-terrestrial, DNA)

  4) Filled out the last written items with obvious sarcasm or diatribes. Critiques of the survey and comments we considered chauvinistic were retained.

  5) Reported their status to be "Alumni" as opposed to Faculty, Staff, or Student. This procedure yielded a final "n" of 4,354.

differentiate between whites and minorities, the race variable was re-coded to form a dichotomous variable (0 = minorities, 1 = whites).

Measures

Familiarity of student disability services battery. This was a short set of items developed for this study that assessed familiarity with available disability services and use of services. Questions were as follows: (1) Does your campus offer disability services? (2) Do you know where the physical location of the disability services office is located? (3) Are you a disabled student? (if "yes" next question will appear, if "no" it will not). (4) Do you use the disability services? (5) Does this campus have a responsibility to offer disability services? (presented to all respondents). Response options to all questions were as follows: (1) Yes (2) No (3) Don't know.

Familiarity of student counseling services battery. This was a short questionnaire, developed for this study that assessed familiarity with available counseling services and use of services. Questions were as follows: (1) Does your campus offer counseling services? (2) Do you know where the physical location of the counseling services office is located? (3) If you needed counseling, would you use the campus counseling service? (4) Does this campus have a responsibility to provide counseling services to students? Responses to all questions were as follows: (1) Yes (2) No (3) Don't know.

---

6) With only 3 student respondents, one campus was not included in any of the analyses.

Familiarity of student insurance battery. This included four items developed for this study that assessed familiarity with available student insurance services and use of services. Questions were as follows: (1) Does your campus offer student health insurance? (2) Do you know where the physical location of the office that has information about student health insurance is located? (3) Have you ever used the student health insurance? (4) Does this campus have a responsibility to provide student health insurance? Responses to all questions were as follows: (1) Yes (2) No (3) Don't know.

Familiarity of student health services/clinic battery. This was a short questionnaire developed for this study that assessed familiarity with available student services and use of services. Questions were as follows: (1) Does your campus have student health services or a student health clinic? (2) Do you know where the physical location of the student health services or clinic is located? (3) Have you ever used the student health services or student health clinic?(4) Does this campus have a responsibility to offer student health services or provide a student health clinic? Responses to all questions were as follows: (1) Yes (2) No (3) Don't know.

Familiarity of student academic counseling services battery. These four items were also developed for this study that assessed familiarity with available student services and use of services. Questions were as follows: (1) Does your campus offer academic or career counseling services? (2) Do you know where the physical location of the academic or career counseling office is located? (3) Have you ever used the academic or career counseling services? (4) Does this campus have a responsibility to offer

academic or career counseling services? Responses to all questions were as follows: (1) Yes (2) No (3) Don't know.

Website content evaluation. Additionally content analyses were conducted to identify the type of information available on the various college websites regarding student services. The accessibility of the information was also assessed by determining how many web pages must be navigated from the homepage to arrive at information regarding the services (i.e. how to use the services and where the offices are located). This method referenced the guidelines set forth for evaluating website content by the Environmental Education and Training Partnership (1997). Service information organization was assessed for functionality by identifying the location of the information on the web page.

Procedure

This study used a modified version of the web-based survey developed for a diversity study conducted by McCallister and Dula (2010) and funded by TBR, to examine the campus climate of all the TBR universities with regard to race/ethnicity. The original study was modified from focusing on four-year universities and replicated to examine similar issues within the TBR community colleges.

The current study combined qualitative and quantitative methodology and involved two distinct stages of data collection. In Phase I, to ensure that accurate information was obtained, the research team called campus personnel to inquire about available student services. Specifically, campus personnel were asked if each campus

provided the following services: disability services, mental health counseling services, health insurance, career/academic counseling services, or a health clinic/health services. Campus personnel provided information regarding the existence of such services and where they could be located.This information helped hone the questions to include in Phase II's web-based survey.

The web-based survey (Phase II) was administered to the students of all 13 community colleges. Survey items were developed specifically for this study and were not modeled after any existing items from any published study. Researchers contacted administrators at each community college and asked them to designate staff responsible for sending out the email invitation to campus listservs. Students were offered the opportunity to enter into a lottery-reward program for their participation to increase participation rates (Dillman 2000). This ensured that participation was voluntary. Furthermore, participants were re-directed to a website where they could enter their personal information for the lottery and ensured anonymity as well (McCallister and Dula 2010). "This research project was approved by the East Tennessee State University Institutional Review Board (IRB), as well as by the IRBs of all schools which had IRBs in place. The TBR system is one system, such that approval of an IRB at one institution should constitute general approval within the system" (McCallister and Dula 2010).

Table 1. *Proportion of Student Participant Sex By Institution*

School Name	Males	% of School Total	Females	% of School Total	School Totals	% of 3,154

Table 1 (continued)

Campus A	86	25.3	243	74.4	340	10.8
Campus B	53	21.5	194	78.5	247	7.8
Campus C	34	18.6	146	79.8	183	5.8
Campus D	43	12.9	289	86.5	334	10.6
Campus E	92	22	324	77.5	418	13.3
Campus F	121	26.5	334	73.1	457	14.5
Campus G	23	31.5	50	68.5	73	2.3
Campus H	62	25.1	184	74.5	247	7.8
Campus I	36	24.2	112	75.2	149	4.7
Campus J	6	22.2	21	77.8	27	.9
Campus K	105	19.6	427	79.7	536	17
Campus L	43	30.7	96	68.6	140	4.4
					3,154	100

Total:

Note: school names were assigned letters to ensure anonymity

Of the 3,154 student participants, 100 percent reported institutional affiliation. See Table 1 above for breakdown of the number of participants from each institution by sex. Generally speaking, female participants outnumbered male participants at a rate of around three to one, depending on the school. As noted, to further ensure anonymity, each campus was assigned a letter in place of the name of the campus.

CHAPTER 3

RESULTS

Analyses were first conducted to report overall percentages regarding knowledge

of student services, physical location of student services, use of student services, and

belief that the campus should provide various student services. In order to avoid

spuriousness, response options "No" and "I don't know" were collapsed into one

response category in order to better assess the absence of knowledge and use.Therefore,

each item regarding use and knowledge of student service consisted of "yes" and "I don't

know/No" response options. The next set of analyses address the relationship of age and

available student services as well as the use of student services and the perception that

services should be provided. Next, group differences between sex, race, and being a first-

generation college students were assessed regarding the use of student services and the

perception that they should be provided. The final set of analyses were conducted to

determine if sex, race, or being a first generation college student predicted the use of

student services or the belief that the campus should offer them.

Percentage totals were calculated across the entire sample for the following

variables: knowledge of the existence of the service, knowledge of the physical location

of the service, and whether services were used. All TBR campuses offer disability

services, partially supporting Hypothesis 1, and 58.0 percent of students were aware these

services existed, whereas.4 percent said the service did not exist, 10.1 percent did not

know, and 31.5 percent did not respond. Out of all of the students polled 31.2 percent

knew the physical location of disability services and 37.7 percent did not, whereas 31.1%

did not respond. As the use of disability services is only pertinent to those identifying themselves as disabled, subsequent analyses regarding use of services did not include disability services. TBR offers insurance to every college student; therefore, student health insurance is available at every campus used in this study. When asked about student health insurance 8.4 percentof the students indicated that they were aware of it, 7.1 percent stated that there was no available student health insurance, 50.5 percentdid not know if student health insurance was offered, and 34% did not respond. Furthermore, none of the campuses had an office dedicated to student health insurance. However, 14.8 percent reported knowing the physical location of the office, while 29.6 percent reported there was no physical location, and 55.6 percent reported that they did not know.

Failing to support Hypothesis 1, not every campus offered mental health counseling services; of the campuses that offered mental health counseling services, 18.7 percent of the students were aware the service was available, but 46.5 percent of the entire sample knew the physical location of the mental health counseling office, and 16 percent agreed that they would use the service if they felt it was needed. As for the campuses that did not offer mental health counseling services, an average of 37.6 percent believed that the service was available, an average of 32.1 percent claimed to know the physical location, and 19.3 percent claimed they would use the service if they felt it was necessary. Further, only two (16.6 percent) schools provided an onsite student health clinic. Only campuses "G" and "H" offered a health service/clinic. Regarding students at "campus G", 68.5 percent knew the service was available, 39.7 percent knew the physical location of the office. However, 58.9 percent of the students at "campus G" reported

using the onsite health service/clinic, and only 25 percent claimed the institution should

provide the service. On the other hand, 5.3 percent of students at "campus H" believed

that the service was available, 2.8 percent knew the physical location of the student health

service/clinic, but 33 percent agreed that the institution should provide the service. As

only two institutions provided a health service/clinic, this variable was not considered in

subsequent analyses regarding knowledge or use of the service. Interestingly, an average

of 14.4 percent students reported that a student health services/clinic was available when

it was not and 6.1 percent claimed to know the physical location of the office that offered

the service. Overall, 7 of the 12 (58.3 percent) college campuses offered academic or

career counseling. Within campuses offering the service, 79.2 percent of students were

aware of it and 63.9 percent knew the specific location of the office. Other than disability

services and health insurance, services provided by colleges in the sample were often not

consistent between campuses.

A product-moment Pearson correlation was performed to assess the relationship

between age, the perceived responsibility of colleges to provide student services, use of

student service, and knowledge of the physical location of the office. Supporting

hypothesis 2a, age was positively correlated to the knowledge of the physical location of

the office for disability services ($r = .10, p < .01$), mental health counseling service ($r =$

$.08, p < .01$), student health insurance ($r = .11, p < .01$), academic/career counseling ($r =$

$.09, p < .01$). Supporting hypothesis 2b, results indicated a positive relationship between

age and the use of disability services ($r = .10, p < .01$) and student health insurance ($r =$

$.12, p < .01$).There were no significant relationships between age and career, academic, or

mental health counseling services (see Table 2 for correlation coefficients). Contrary to hypothesis 3, results indicated age was negatively correlated to the perceived responsibility to provide student health services or provide a student health clinic ($r = -.05, p < .01$). In other words, younger students were more likely to expect a campus to provide health services or a health clinic. There were no other significant correlations between perceived responsibility and age. See Table 3 for correlation coefficients.

Table 2. *Correlations Between Age, Use of Services, and Knowledge of Physical Location of Services*

	Age	Loc. Dis. Serv.	Use Dis. Serv	Loc. Couns. Serv.	Use Couns. Serv.	Loc. Hlth. Ins	Use Hlth. Ins.	Loc. Acad. Car. Couns.	Use Acad.Car. Couns.
Age	-	-	-	-	-	-	-	-	-
Loc Dis. Serv	.10**	-	-	-	-	-	-	-	-
Use Dis. Serv	.10**	.20**	-	-	-	-	-	-	-
Loc. Couns. Serv.	.08**	.36**	.07**	-	-	-	-	-	-
Use Couns. Serv.	.03	.10**	.04*	.25**	-	-	-	-	-
Loc. Hlth. Ins.	.11**	.14**	.05**	.21**	.06**	-	-	-	-
Use Hlth. Ins.	.12**	.03	.00	.08**	.06**	.25**	-	-	-
Loc. Acad./ Car. Couns.	.09**	.24**	.05*	.29**	.13**	.11**	.07**	-	-
Use Acad./ Car. Couns.	.07	.11**	.04*	.17**	.10**	.02	.06**	.58**	-

*p < .05 *p < .01

A chi-square test was conducted to assess the relationship between the use of student services and the perceived responsibility to provide them. Supporting hypothesis 4, results indicated that students who believed the campus had a responsibility to offer student services were more likely to use them for mental health counseling services χ^2 (1) = 148, p < .001; student health insurance χ^2 (1) = 7.93, p < .005; and career/academic counseling χ^2 (1) = 96.09, p < .001. See Table 4 for crosstabulations and percentages pertaining to the belief that the campus is responsible for offering student services.

Table 3. *Correlations Between Age and Perceived Responsibility to Provide Services*

	Age	Disability Service	Counseling Service	Health Insurance	Academic/Career Counseling	Health Service/Clinic
Age	-	-	-	-	-	-
Disability Service	-.03	-	-	-	-	-
Counseling Service	-.01	.50**	-	-	-	-
Health Insurance	-.02	.20**	.40**	-	-	-
Academic/Career Counseling	.01	.46**	.51**	.29**	-	-
Health service/clinic	-.05**	.26**	.50**	.57**	.40**	-

Table 4. *Crosstabulations of responsibility to offer services and use of services*

	Use of service					
Responsibility to offer services	Mental Health Counseling		Health Insurance		Acd/Car Counseling	
	No	Yes	No	Yes	No	Yes
Mental Health Counseling**						
Disagree	66%	34%				
Agree	40.2%	59%				
Health Insurance**						
Disagree			99.5%	.5%		
Agree			98.5%	1.5%		
Academic/ Career Counseling**						
Disagree					75.8%	24.2%
Agree					47.3%	52.7%

$**p < .01$

A series of chi-squares were conducted to examine differences between groups on use of student services. Hypothesis 5 was completely unsupported, as results suggested that the whites and minorities were not significantly different in the use of any student

service. In other words, neither group displayed a tendency to use student services when compared with the other.

Hypothesis 6 was completely unsupported as results showed that there were no sex differences in the use of any student services. See Table 5 for crosstabulations and percentages pertaining to the use of student services.

As previous research does not examine the belief of a responsibility of a college campus to provide student services, a series of chi-squares were conducted to examine differences between groups on beliefs of responsibility to offer services. The results regarding hypothesis 7 were mixed. Among belief of a responsibility to offer disability services there was a significant difference between races (Caucasian/Minority) χ^2 (1) = 8.73, p < .003. There was also a significant difference between males and females χ^2 (1) = 9.74, p < .002. The next variable examined was perceptions of campus responsibility to offer counseling services. Results indicated a significant difference between males and females for responsibility to offer counseling services χ^2 (1) = 7.70, p < .006. There was no statistical significant difference for race. On perceptions of universities' responsibilities to offer health insurance, a significant association between races χ^2 (1) = 9.27, p < .002 and sexes χ^2 (1) = 5.91, p < .015. On perceptions of responsibly to offer career and academic counseling, a significant difference was found for race χ^2 (1) = 5.91, p < .015. With responsibility for the universitiesto provide a health services clinic, no significant difference was observed for any group. No significant differences were found for the race or sex variables. Hypothesis 8a was largely supported. Results indicated that

first generation college student status did not have an effect on the belief that the campus had a responsibility to offer disability services. However, first generation college students were more likely to believe that the campus had a responsibility to offer mental health counseling services χ^2 (1) = 4.80, p < .028 and career/academic counseling services χ^2 (1) = 3.95, p < .026. No significant differences were observed between first generation college students and their counterparts in the use of student health insurance. See Table 6 for crosstabulations and percentages related to the responsibility to offer student services.

Table 5. *Crosstabulation of race, sex, and first generation college students by use of student services*

	Use Health Insurance	Use Acad/Career Counseling	Use Mental Health Counseling
Race			
White	.9%	50%	52.3%
Minority	.9%	46.6%	56.1%
Sex			
Male	.9%	48.9%	50.4%
Female	.9%	49.3%	53.6%
1st Gen. Coll. Student			
Yes	.7%	51.5%	57.3%**
No	1%	47.7%	50.2%**

** p < .01

Hypothesis 8b was largely unsupported as first generation college students were only more likely to believe that the campus had a responsibility to offer mental health counseling χ^2 (1) = 14.19, p < .001. See Table 6 for crosstabulations and percentages.

Table 6. *Crosstabulation of race, sex, and first generation college students by responsibility to provide student services*

	Dis.Serv.	Hlth. Ins.	Hlth Serv./Clinic	Acad./Car. Counsel	M. H. Counsel
Race					
White	88.1%	35.5%**	58.1%	89%*	73.9%
Minority	83.5%	42.5%**	60.3%	85.3%*	74.5%
Sex					
Male	83.8%	32.9%*	56.7%	87.1%	69.9%**

Table 6 (continued)

Female	88.4%	38.1%[*]	59.%	88.7%	75.3%[**]
1st Gen. Coll. Student					
Yes	86.8%	37.4%	57.%	88.6%	76.3%[*]
No	87.6%	36.6%	59.5%	88.2%	72.7%[*]

* p < .05, ** p < .01, ***p < .001

Table 7. Summary of Results By Hypothesis

H1. Community colleges would share a commonality of key student overall health services.	Largely unsupported. All campuses have disability services, but all other services vary greatly from school to school.
H2a. Age would be positively correlated with knowledge of the location of student services. H2b. Age would be negatively correlated with the use of student services.	H2a. Supported. Age was positively correlated with the knowledge of location of all services. H2b. Unsupported. Age was positively correlated with the use of all student services.
H3. Age would be positively correlated with the belief that schools have a responsibility to provide services.	Supported. Age was positively correlated with belief schools have a responsibility to provide all student services.
H4. A positive relationship was expected between student perceptions regarding the availability of student services and whether services are actually being used.	Supported. Students believing that the campus had a responsibility to offer services were more likely to use them.
H5. Minority students would use student services more than white students.	Completely unsupported. There were no significant differences.
H6. Females would use student services more than males.	Completely unsupported. There were no significant differences. This contradicted previous literature.
H7a. Minority students would be more likely than white students to feel colleges have a responsibility to provide student services. H7b. Female students would be more likely than male students to feel colleges have a responsibility to provide student services.	H7a. Largely unsupported. Results suggested minorities were more likely to endorse a responsibility to provide health insurance. Whites were more likely to endorse a responsibility to provide disability services and academic/career counseling. H7b. Largely supported. Females were more likely than males to feel colleges have responsibility to provide disability services, mental health counseling, and health insurance.
H8a. First generation college students will be less likely to use student services. H8b. First generation college students will be less likely to agree that the colleges have a responsibility to offer student services.	H8a. Largely Supported. First generation college students were more likely to use academic and mental health counseling services. H8b. Largely unsupported as first generation college students perceived only that the colleges have a responsibility to offer mental health counseling.

Exploratory analyses were conducted in the form of binary logistical regressions

to assess the effects of group membership on the belief that the campus had a

responsibility to offer the student services and the use of student services. A linear regression could not be used as the outcome variables are categorical and thus violate assumptions of linear regression. For this reason, a series of logistical regressions were conducted to isolate if group membership in either sex (female vs. male), race (minority vs. white), or first generation college student (yes vs. no) could predict opinions regarding a responsibility to offer student services and the use of them.

The first of set logistical regressions assessed whether the sex group (0 = female, 1=male), race group (0 = minority, 1 = whites), or first generation college student group (0 = no, 1 = yes) could predict an opinion that the campus has a responsibility to offer disability, counseling, health insurance, health clinic, and academic/career counseling services (for all dependent variables 0 = disagree, 1 = agree). Results indicated that the male group significantly decreased one's odds by 47.5 percent (b = -.39, SE = .13, p = .002), mental health counseling services by 31.6 percent (b = -.28, SE = .1, p = .005), and health insurance by 24.7 percent (b = -.22, SE = .09, p = .02). Sex group membership had no significant effect on the belief that a college has a responsibility to offer academic/career counseling services or student health services/clinic.

Results also indicated that being white increased one's odds of agreeing that the campus had a responsibility to offer disability services by 52 percent(b = .42, SE = .13, p = .001), and career/academic counseling services by 44 percent (b = -.36, SE=.14, p = .008), compared to membership in the minority group. However, it decreased the odds of agreeing that the campus should offer health insurance by 32 percent (b = -.28, SE = .10,

p = .004), when compared to minorities. Furthermore, membership in the white group

could not predict the belief that the campus had a responsibility to offer mental health

counseling or a health service/clinic. Regarding the first generation college student group,

the regression analyses indicated that membership in the group could not predict an

opinion that the campus has a responsibility to offer disability, counseling, health

insurance, health clinic, and academic/career counseling services when compared to the

non-first generation college student group.

Regression results indicated that with every one unit increase in age, the

likelihood that one would believe the campus had a responsibility to offer

career/academic counseling services increased by 1.9 percent (b = .02, S.E. = .006, p =

.001). However, age did not seem to be an adequate predictor of the responsibility to

offer any other student service. Table 8 summarizes the findings of predictors by a

responsibility to offer student services.

Table 8. *Predictors of Responsibility to Offer Student Services*: b(SE)

	Disability Services	M. H. Counseling	Health Insurance	Car/Acad Counseling	Hlth. Srv./Clinic
Race	.42 (.13)*	-.01 (.11)	-.28 (.1)*	.37 (.14)*	-.07 (.1)
Sex	-.39 (.13)*	-.28 (.1)*	-.22 (.09)*	-.16 (.14)	-.09 (.09)
First Gen.	-.11 (.12)	.16 (.09)	.03 (.08)	-.03 (.12)	-.11 (.08)
Age[d]	.01 (.01)	.002 (.004)	.003 (.004)	.02 (.006)*	-.004 (.004)

*p < .05

The second set of logistical regression assessed if the sex group, race group, first

generation college student group, or age could predict the use of counseling, health

insurance, health clinic, and academic/career counseling services. Results indicated that membership in the male group could not predict the use of any student service when compared to females. Results also indicated that being white did not predict the likelihood of using any of the student services when compared with minorities. Furthermore, results suggested that membership in the first generation college student group increased the odds of using the campus mental health counseling service by 33 percent (b = -.30, SE = .08, p < .001. However, being a first generation college student did not predict the use of student health insurance or career/academic counseling services. With each unit increase in age, the likelihood of using mental health counseling students increased by 1 percent and a 1.1 percent increased likelihood to use career/academic services. Table9 summarizes the relevant findings by sex, race, and first generation college student status.

Table 9. *Predictors of Use of Student Services*: b(SE)

	M. H. Counseling	Health Insurance	Car/Acad Counseling
Race	-.17 (.1)	-.03 (.5)	.16 (.1)
Sex	-.11 (.09)	.003 (.47)	-.01 (.09)
First Gen.[a]	.29 (.08)*	-.46 (.43)	.13 (.08)
Age[a, c]	.01 (.004)*	.03 (.02)	.01 (.004)*

*p < .05

Content Analysis

For each service, scores from knowledge of the availability and location of the student services were averaged to produce a rank for each campus on each student service

(1 = highest 12 = lowest). The overall rank of each campus was calculated by averaging the total scores from each student service. The results showed that students at "Campus G" were more likely to know if the service was available and where it was located, while students at "Campus J" were the least likely. Based on these rankings, the websites of both campuses were evaluated regarding the information available regarding student services. Using a content analysis method, the websites from both schools were analyzed based on three criteria. First, the number of clicks or pages that the student services information was away from the homepage was counted. Second, whether the website used the words "student services" was determined. The third criterion was to check the student service website (if one existed) for the contact and location information for each service.

The website for "Campus G" seemed to be the most detailed and contained the greatest amount of information out of all 12 community colleges in the sample. For example, the student services web page was two "clicks" or pages away from the campus homepage. The path to the page was logical and made simple by clicking on "students" from the homepage and then choosing student services on the "For Students" page. On the "Student Services" page all services were clearly listed in alphabetical order and individual links provided contact information and location for each service. Furthermore, the "Campus G" web site provided a site map that listed each service individually and provided a link to the page.

The website for "Campus J" not only seemed to be unorganized, it also did not have much available information. For instance, the web site did not have a web page solely devoted to student services. There was a "current students" link provided on the homepage; however, the only service listed under the web page was disability services. The "Campus J" web site did not include a site map used to search for the available services. Unfortunately, there was not a method to search for available student services (i.e. site search engine).

The campus web sites that fell in the middle of the rankings displayed some of the characteristics of both "Campus G" and "Campus J". For example, all had a web page devoted solely to student services that was about 2-3 clicks or pages removed from the home page containing a detailed list of available services. On the other hand, higher ranked schools also provided a site map and contact information for each service (i.e. telephone numbers and location) on the student services web page. The content analysis provides support for earlier work from researchers such as Shenton and Dixon (2004)that concluded for contemporary students web-based resources are an important source of information regarding health resources.

CHAPTER 4

DISCUSSION

The hypothesis that TBR community colleges would share a commonality in available student services was partially supported in that the law requires the provision of certain services (i.e. disability services and student health insurance). However, other critical services such as mental health and academic/career counseling were offered at some campuses while others offered a health services clinic. These results may reflect an effect of geographic location (rural vs. urban). For example, rural areas tend to stigmatize use of health services more than urban areas. Rost and colleagues (1993) state stigma is a primary reason that people do not seek mental health care in rural areas in order to avoid being labeled as "crazy". The only services that every campus had in common were required by TBR. Perhaps the first step in improving the awareness of student services is to offer services that students will both expect and use. Age was positively related to the knowledge of the location of student services and the use of student services. This supports previous literature concluding that nontraditional students (typically older in age) tend to be more conscious of available support services but are less likely to use them (Bannister 2009). Even though the correlations were weak, all were positively correlated and only use of mental health counseling was not significant. This may be due to the stigma held by the older generation regarding the use of mental health counseling services. For example, Klap, Unroe, and Unutzer (2003) stated that middle aged and older adults prefer to receive necessary mental health services in traditional primary care settings. Interestingly, age was positively correlated with the knowledge of the physical

location of every student service except the student health service/clinic. This may be because older adults are more likely to have private insurance, thus they may just be using the service for referrals to primary care specialists. As student health services/clinics are paid for through student fees, students are not required to make co-pays for appointments. This explains why older adults may use it as a referral service to avoid the extra expense when scheduling a doctor appointment for diagnostic reasons.The hypothesis that use of student services would be positively correlated to the perception that the campus had a responsibility to provide the service was supported. This suggeststhat college students are more likely to use student services they believe their campus has a responsibility to provide. The only exception was disability services. This result could be explained by the fact that students without disabilities are unable to use disability services but can still recognize its importance. Therefore, excluding the service with a prerequisite, the use of student services is positively correlated with the belief that they should be offered.

These findings could benefit post-secondary education institutions two-fold. First of all, because the resource allocation method that an institution chooses to employ can affect its ability to control costs (Ehrenberg 2000), it is advantageous for the administrations to allocate the majority of resources toward the programs that students deem necessary and will use. By catering available services to student needs, this could aid in creating not only budget friendly services that students will benefit from but also form a strong foundation for what Dula and Geller (2007) refer to as a "Total Safety and Health Culture". This process is rooted in a people-based approach to health and safety in

which encourages personal responsibility and interpersonal interaction regarding health and safety (Dula and Geller, 2007). As far as college student services are concerned, a Total Safety Culture process would be beneficial because it would actively involve students in the development of services and the means used to disseminate the information regarding such services. Dula and Geller state that the more people are involved in a health and safety improvement process, the more likely the process is to be sustained and contribute an ultimate benefit (2007). Therefore, according to the results of this study, community college campuses should track the services that students tend to use more and provide only those services. This would aid in reducing unnecessary expenses as well as in centralizing and focusing the information regarding such services. In other words, students are more likely to keep abreast of information regarding services that they use and it is easier to efficiently organize smaller amounts of information.

The hypothesis that minorities would use and expect student services more than whites was completely unsupported. There were no significant differences between races in the use of student services. However, a common theme did emerge, health services seem to be more important to minority students than other student services. On the other hand, academic/career counseling and disability services (commonly referred to as support services) seem to be more important to white students. Such results may be related to the inequality in earnings between whites and minorities. To elaborate, whites typically have greater access to health insurance than other minorities. For example, Doty and Holmgren (2004) reported that 63 percent of employed whites were uninsured compared to 76 percent of employed blacks and 80 percent of employed Hispanics. This

could be explained as whites are more likely to be employed where health services are offered as benefits or be able to afford independent health services. This can translate in to the college setting because white students are more likely to come from households in which they are still covered by their parents' insurance, while minority students are likely to come from homes in which family members use health services provided by the government or not at all.

The hypotheses that women would use and expect the provision of student services more than men was largely unsupported. Although women were more likely to perceive that the campuses have a responsibility to offer mental health counseling, they were not more likely to use it or any other service for that matter. This may indicate that differences in the perception of health services between the sexes are shifting. However, it is unclear if males are placing more value on such services or if females are attributing less value to them.

Analysis revealed that, overall, being male significantly reduced the odds that a college student would believe the campus had a responsibility to offer most student services. However, males were more likely to use health services/clinic. However, these findings may be a result of measurement error because only two campuses provided an onsite health service/clinic. In other words, many males claimed to use a service that was not provided or believed the question was referencing an off-campus service. Either way, the implications of both provide feedback that may be used to implement a systems change because it could promote a change in the way that administrators make decisions

about available student services and the allocation of resources for them. Most importantly, this conclusion identifies an area for improvement in the way that information regarding student services is presented to students. It is also possible that this could be used as a means of communication; male students need a health service/clinic on campus.

The overall influence of being a first generation college student had a mixed effect on the results. For example, conflicted results were produced by the different analyses (i.e. chi-square and binary logistical regression). However, a common theme seemed to emerge in the use of mental health counseling services by first generation college students. This tendency to use campus mental health services can be attributed to the lack of social support (i.e. parents) experienced by many first-generation college students (Conneely, Good, and Perryman 1999; Savage 2007). In other words, because the parents of first-generation college students did not attend college; they cannot relate to certain obstacles that the students may face (i.e. demanding class load, personal problems with instructors). Therefore, it is feasible that first-generation college students would be more likely to use the campus mental health counseling service as a substitute for a social support group when looking for guidance and seeking counsel regarding troubling school related experiences. As much of the funding for education focuses targets this population, campus administrators should develop programs designed to retain first-generation college students. For example, mental health counseling as well as academic career counseling services could be combined into a single office. This would be beneficial for two reasons. First of all, it centralizes the two services that first

generation students use the most and makes them more accessible. Given that this demographic has less access to social support needed for college students, they will be able to obtain the guidance needed in one office. Secondly, this would aid in reducing overhead costs of maintaining two separate offices and staffing units.

Limitations and Future Research

A few limitations of the study are worth mentioning. Most importantly, the item construction contained possible flaws. For instance, some of the questions did not explicitly specify that the service in question pertained to a service provided by the campus. In other words, participants could have answered the question in reference to services that they use in their community. As this study was performed with community colleges in Tennessee, these results can only generalize to Tennessee community college students. Future research should consider a national sample to provide more accurate inferences regarding the "average" college student. Moreover, students were not asked the method through which they obtain information regarding student services. Therefore, the data could have been skewed if these students indeed did not use the Internet as a primary source of information; however, results from the content analysis suggest otherwise. In the future researchers may want to examine the effect of socioeconomic status on the variables within this study. Additionally, geographic location (rural vs. urban) may need to be considered as well. Results from this study can ultimately be used to initiate a systems change in the way information regarding student services is organized and presented. For example, a link and specific page dedicated to student

services will increase the likelihood that students will be aware that the service is offered and develop a plan to target specific demographics regarding the student services most important to them. Furthermore, results from this study can help the administration within a community college adhere to their budget constraints while still providing valuable student services. Future research should also seek to identify possible barriers to using student services; including but not limited to discrimination (sex, race, and sexual orientation), limited hours of operation, and limited staffing.

Needs Assessment

Identifying the problem: With the continuance of an economic downturn, lawmakers continue to cut educational spending; consequently hurting families and reducing valuable services. In *An Update on State Budget Cuts*, Johnson, Oliff, and Williams (2010) reported that 39 states consistently reduced funding to higher education in 2008 and 2009. Ultimately, such a reduction in aid to educational institutions could facilitate a reduction in available student services. Furthermore, with first generation college students increasingly becoming a significant part of the community college population (AAAC 2011), administrators should cater student services to the needs of this demographic. Likewise, because women are increasingly outnumbering men in the college setting (U. S. Department of Labor 2010), campus administrators should consider offering services aimed at them as well.

Identifying existing service gaps: In this community college sample, many campuses did not offer necessary services such as a health clinic (58 percent indicated a

responsibility to provide it) or mental health counseling (16 percent indicated a responsibility to provide it). In other words, these campuses are not meeting the perceived needs of some of their students. Furthermore, a lack of knowledge regarding the service led to a lack of use of the service as well, suggesting that a more efficient organization of the information regarding student services is needed.

Possible barriers to using student services: This study identified two possible barriers to using student services, if the campus had a student services web page and how accessible that information was.

Action plan: A Positive Behavior Support plan is a possible solution to this problem. *Positive Behavior Support* (PBS) uses educational techniques to implement a systems change (environmental redesign), ultimately improving an individual's quality of life (Carr et al. 2002). Positive Behavior Support is rooted in person-centered planning, a process in which the needs of individuals help to form new service structures that are customized to meet the needs of the community that the service serves (Carr et al. 2002). Such an intervention stresses community participation by designating every individual within the community as an agent of change. TBR community colleges could employ this type of intervention by providing the services that students state they need and dissolving services that students do not use. Furthermore, because a systems change is constantly evolving, TBR community colleges could use PBS in assessing the most effective way to package the information in such a way as to increase the knowledge of the availability of student services.

REFERENCES

American Association of Community Colleges (AACC) membership database, January 2011.

Archer, James and Stewart Edwin Cooper. 1998. "*Counseling and Mental Health Services on Campus: A Handbook of Contemporary Practices and Challenges*". San Francisco, CA: Jossey-Bass Publishers.

Athiyaman, Adee. 1997. "Linking Student Satisfaction and Service Quality Perceptions: the Case of University Education". *European Journal of Marketing* 31(7):528-540.

Balfanz, Robert. 2007. "What Your Community Can Do To End Its Drop-Out Crisis: Learning From Research and Practice". Paper presented at the National Summit on America's Silent Epidemic, Washington, DC.

Bannister, Stephanie J. 2009. "The Experiences of Non-Traditional Students Utilizing Student Support Services: A Qualitative Study. "Unpublished manuscript. Dissertation, Kansas State, UMI Microform.

Bates, Benjamin R., Sharon Romina, Rukhsana Ahmed, and Danielle Hopson.2006. "The effect of Source Credibility on Consumers' Perceptions of the Quality of Health Information on the Internet". *Informatics for Health and Social Care* 31(1):45-52.

Benkler, Yochai. 2002. "Intellectual Property and the Organization of Information Production". *International Review of Law and Economics* 22:81-107.

Boyd, William M. 1982. "The Secret of Minority Retention". *AGB Reports* 24(2):17-21.

Bui, Khanh Van T. 2002. "First Generation College Students at a Four-Year University: Background Characteristics, Reasons for Pursuing Higher Education, and First-Year Experiences". *College Student Journal* 36(1):3-11.

Carr, Edward G., Glen Dunlap, Robert L. Koegel, Ann P. Turnbull, Wayne Sailor, Jacki L. Anderson, Richard W. Albin, Lynn Kern Koegel, and Lise Fox. 2002. "Positive Behavior Support: Evolution of an Applied Science". *Journal of Positive Behavior Interventions* 4(1):4-16.

Centers for Disease Control and Prevention. 2007. "Cigarette Smoking Among Adults – United States, 2006". *Morbidity and Mortality Weekly Report* 56(44):1157-1161.

Comstock, Lloyd K. and Cecil Slome. 1973a. "A Health Survey of Students: Prevalence of Perceived Problems". *Journal of the American College Health Association* 22(2):150-155.

------.1973b. "A Health Survey of Students: Satisfaction, Attitudes, and Knowledge". *Journal of the American College Health Association* 22(2):156-159.

Conneely, James F., Claire Good, and Kristi Perryman. 2001. "Balancing the Role of Parents in the Residential Community". *New Directions for Student Services* 94:51-61.

Dalton, William Tolbert III and Danita I. Czyzewski. 2009. "Behavioral Treatment of

    Habitual Rumination: Case reports". *Digestive Diseases and Sciences* 54:1804-

    1807

Davies, Jon, Byron P. McCrae, Joanne Frank, Annie Dochnahl, Tony Pickering, Brent

    Harrison, Mark Zakrzewski, and Kirsten Wilson. 2000. "Identifying Male College

    Students' Perceived Health Needs, Barriers to Seeking Help, and

    Recommendations to Help Men Adopt Healthier Lifestyles". *Journal of American*

    College Health 48:259-267.

DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica C. Smith. 2010. "Income,

    Poverty, and Health Insurance Coverage in the United States: 2009, U.S.

    Government Printing Office". U. S. Census Bureau Current Population Reports:

    Washington, DC.

Desai, Melissa N., William C. Miller, Betty Staples, and Terrill Bravender. 2008. "Risk

    Factors Associated With Overweight Obesity in College Students". *Journal of*

    American College Health. 57(1):109-114.

Dillman, Don A. 2000.*Mail and Internet Surveys--The Tailored Design Method*. New

    York: John Wiley & Sons, Inc.

Doty, Michelle M. and Alyssa L. Holmgren. 2004. "Unequal Access: Insurance

    Instability Among Low-Income Workers and Minorities". *The Commonwealth*

    Fund: Task Force on the Future of Health Insurance 729:1-6.

Dula, Chris S. and E. Scott Geller. 2007. "Creating a Total Safety Traffic Culture".

    Traffic Safety Culture in the United States: The Journey Forward. Paper presented

    at the Conference for American Automobile Association Foundation for Traffic

    Safety.

Eadie, Erin M., Marsha G. Runtz, and Julie Spencer-Rodgers. 2008. "Posttraumatic

    Stress Symptoms as a Mediator Between Sexual assault and Adverse Health

    Outcomes in Undergraduate Women". *The Journal of Traumatic Stress*

    21(6):540-547.

Eisenberg, Daniel, Justin Hunt, Nicole Speer, and Kara Zivin. 2011. "Mental Health

    Service Utilization Among College Students in the United States". *The Journal of*

    Nervous and Mental Disease 199(5):301-308.

Environmental Education and Training Partnership.1997. "Issues Associated with

    Nonformal Environmental Educator Certification". Environmental Education

    association of Oregon Retrieved March 14, 2012

    (http://cms.eetap.org/repository/moderncms_documents/Issues_Associated_with_

    Nonformal_Environmental_Educator_Certification.1.1.1.pdf).

Escoffery, Cam, Kathleen R. Miner, Daniel D. Adame, Susan Butler, Laura McCormick,

    and Elizabeth Mendell. 2005. "Internet Use for Health Information Among

    College Students". *Journal of American College Health* 53 (4):183-188.

Fox, Susannah and Lee Rainie. 2000. *The Online Healthcare Revolution: How the Web Helps Americans Take Better Care of Themselves*. Washington, DC: Pew Internet and American Life Project.

Gallagher, Robyn P., Ann M. Gill, and Suzanne K.Sysko. 2000. *National Survey of Counseling Directors*. Alexandria, Va: International Association of Counseling Centers, Inc.

Gallagher, Robyn P., Suzanne K.Sysko, and Boi Li Zhang. 2001. *National Survey of Counseling Center Directors*. Alexandria, Va: International Association of Counseling Centers, Inc.

Gow, Rachel W., Sara E. Trace, Suzanne E. Mazzeo. 2010. "Preventing Weight Gain in First Year College Students: An Online Intervention to Prevent the 'Freshmen Fifteen'". *Eating Behaviors* 11:33-39.

Green, Cheryl F. 1995. "An Examination of Black College Students' Perceptions of Psychological stressors, Use and Awareness of Student Services, and Campus Environment". Dissertation, Southern Illinois University.Unpublished Manuscript.

Halpin, Stanley. M., Siegfried Steufert., James Steffey, and Nancy Lanham. 1971. "Information Load, Proportion of Relevance, and Relevance Perception" *Psychonomic Science*. 23:222-225.

Hanauer, David, Emily Dibble, Jennifer Fortin, and Nananda F. Col. 2004. "Internet Use Among Community College Students: Implications in Designing Healthcare Interventions". *Journal of American College Health*. 52(5):197-202.

Harris, Roma M. and Patricia Dewdney. 1994. *Barriers to Information: How Formal Help Systems Fail Battered Women*. Westport, CT:Greenwood.

Hill, Frances M. 1995. "Managing Service Quality in Higher Education: The Role of the Student as Primary Consumer". *Quality Assurance in Education* 3(3):10-21.

Johnson, Nicholas, Phil Oliff, and Erica Williams. 2010. "An Update on State Budget Cuts. *Center on Budget and Policy Priorities*"1-15.

Kitzrow, Martha A. 2009. "The Mental Health Needs of Today's College Students: Challenges and Recommendations". *Journal of Student Affairs Research and Practice* 46(4): 646-660.

Klap, Ruth, Kathleen T. Unroe, and Jurgen Unutzer. 2003. "Caring for Mental Illness in the United States: A Focus on Older Adults". *American Journal of Geriatric Psychiatry* 11(5):517-524.

Leaf, Phillip J. and Martha Livingston Bruce. 1987. "Gender Differences in the Use of Mental Health-Related Services: a Re-Examination". Journal of Health and Social Behavior 28(2):171-183.

Lobstein, T., L. Baur, and R. Uauy. 2004. "Obesity in Children and Young People: A Crisis in Public Health". *Obesity Reviews* 5(1):4-85.

Macintyre, Sally, Kate Hunt, and Helen Sweeting. 1996. "Gender Differences in Health Are Things Really as Simple as They Seem?" *Journal of Social Science and Medicine* 42:617-624

Manis, Melvin, Mark Fichman, and Marjorie B. Platt. 1978. "Cognitive Integration and Referential Communication: Effects of Information Quality and Quantity in Message Decoding". *Organizational Behavior and Human Performance* 22:417-430.

McCallister, Leslie A., and Chris Dula. 2010. "Examining the Campus Racial Climate and Its Effect on Student Persistence and Success." Paper presented at the third biennial Tennessee Board of Regents Diversity Conference. Nashville, TN.

McKinlay, John B. 1996. Some Contributions from the Social System to Gender Inequalities in Heart Disease.*Journal of Health and Social Behavior* 37:1-26.

Mechanic, D., and J. R. Greenley. 1976. "The Prevalence of Psychological Distress and Help-Seeking in a College Student Population". *Social Psychiatry and Psychiatric Epidemiology* 11(1):1-14.

Metzger, Miriam J., Andrew J. Flanagin, and Laura Zwarun. 2003. "College Student Web Use, Perceptions of Information Credibility, and Verification Behavior". *Journal of Computers and Education* 41:271-290.

Mokdad, Ali H., Earl S. Ford, Barbara A. Bowman, Frank Vinicor, Virginia S. Bales, James S. Marks. 2003. "Prevalence of Obesity, Diabetes, and Obesity Health-Risk Factors". *Journal of American Medical Association* 289(1):76-79.

Moos, Rudolf H. and Bernice Dort. 1977. "Physical and Emotional Symptoms and Campus Healthcare Utilization". *Journal of Social Psychiatry and Psychiatric Epidemiology* 12(3):107-115.

Mustard CameronA., Patricia Kaufert , Anita Kozyrskyj, and Teresa Mayer. (1998). Sex Differences in the Use of Health Care Services. *New England Journal of Medicine* 338(23):1678–1683.

National Institute on Drug Abuse (NIDA). 2010. "InfoFacts: Cigarettes and Other Tobacco Products. *The Science of Drug Abuse and Addiction* 1-6.

O'Reilly, Charles A. III. 1980. "Individuals and Information Overload in Organizations: Is More Necessarily Better?"*Academy of Management Journal* 23(4):684-695.

Oldfield, Brenda M. and Steve Baron. 2000. "Student Perceptions of Service Quality in a UK University Business and Management Faculty". *Quality Assurance in Education* 8(2):85-95.

Pascarella, Ernest T., Christopher T. Pierson, Gregory C. Wolniak, and Patrick T. Terenzini. 2004. "First-Generation College Students: Additional Evidence on College Experiences and Outcomes". *Journal of Higher Education* 75(3):249-284.

Perkins, H. Wesley, Michael P. Haines, and Richard Rice. 2005. "Misperceiving the

    College Drinking Norm and Related Problems: A Nationwide Study of Exposure

    to Prevention Information, Perceived Norms and Student Alcohol Misuse".

    Journal of Studies on Alcohol and Drugs 66(4):470-478.

Pollan, Michael. 2006. *The Omnivore's Dilemma*. New York: Penguin Press.

Porat, Avner M. and John A. Haas. 1969. "Information Effects on Decision Making".

    Systems Research and Behavioral Science 14(2):98-104.

Rieh, Soo Young and Brian Hilligoss. 2008. *College Students' Credibility Judgments in*

    the Information-Seeking Process: *Digital Media, Youth, and Credibility*.

    Cambridge, MA: MIT Press.

Roos, Noralou P., Patrick Montgomery, Leslie L. Roos.1987. Healthcare Utilization in

    the Years Prior to Death.*The Milbank Quarterly* 65:231-254

Rost, Kathryn M., Richard Smith, and Lynn Taylor. 1993. "Rural-Urban Care

    Differences in Stigma and the Use of Care for Depressive Disorders". *Journal of*

    Rural Health 9(1):57-62.

Rotimi, Charles N., Salah el-Dean, Robert A. Freeman, and Eugene Lee. 1986.

    "Student's Attitudes Toward University Health Services". *Journal ofAdolescence*

    21(82):421-429.

Russell, Jean, Garry Thomson, and Doreen Rosenthal. 2008. "International Student Use of University Health and Counseling Services". *Journal of Higher Education* 56(1):59-75.

Sanford, Timothy R. 1979. "Non-academic Factors Influencing the 'Withdrawal' of Academically Ineligible Black students". Educational Resources Information Center.1-13 (13 pages). Retrieved January 20, 2011 (http://eric.ed.gov).

Savage, Marjorie. 2007.*Developing a Parent Program that Reflects Campus Culture*. Twin Cities, MN: University of Minnesota, Office of Parent Programs.

Scitovsky, Anne A. 1994. "The High Cost of Dying" Revisited. *The Milbank Quarterly* 72 (4):561-591.

Shenton, Andrew and Pat Dixon. 2004. "Issues Arising from Youngsters' Information-Seeking Behavior". Library and Information Science Research 26:177-200.

Smith, Sondra L., Jane E. Myers, and Laura G. Hensley. 2002. "Putting More Life into Life Career Courses: The Benefits of a Holistic Health Model". *Journal of College Counseling*. 5:90-95.

Stanley, Nicky, Sharon Mallon, Jo Bell, and Jill Manthorpe. 2010. "Suicidal students' Use of and Attitudes to Primary Care Support Services". *Primary Healthcare Research and Development*11(4): 315-325.

Sue, Stanley, Diane C. Fujino, Li-tze Hu, David T. Takeuchi, and Nolan W. S. Zane. 1991. "Community Health Services for Ethnic Minority Groups: A Test of the

Cultural Responsiveness Hypothesis". *Journal of Consulting and Clinical Psychology* 59(4):533-540.

Tansill, Erin C., Katie M. Edwards, Megan C. Kearns, Christine A. Gidycz, and Karen S. Calhoun. 2012. "The Mediating Role of Trauma-Related Symptoms in the Relationship Between Sexual Victimization and Physical Health Symptomatology in Undergraduate Women". *Journal of Traumatic Stress* 25(1):79-85.

Tennessee Board of Regents. 2008. "A Focus on Health: Healthy Employees Equal a Healthier Bottom Line". *TBR Associates Benefits Update* 4(1):1-2.

Terenzini, Patrick T., Leonard Springer, Patricia M. Yaeger, Ernest T. Pascarella, and Amaury Nora. 1996. First-generation College Students: Characteristics, Experiences, and Cognitive Development. *Journal of College Student Development* 37(1):1-22.

U. S. Department of Health and Human Services. 2009. "Preventing Tobacco Use Among Young people: A Report of the Surgeon General". Atlanta, GA: Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Public Health Services, US Department of Health and Human Services.

U. S. Department of Health and Human Services. 2010. "Tobacco Control State Highlights 2010". Atlanta, GA: Office on Smoking and Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease

Control and Prevention, Public Health Services, US Department of Health and
Human Services.

U. S. Department of Labor. 2011. "Women's Employment During the Recovery".

Ware, John E. and Barbara J. Doyle. 1977. "Physician Conduct and Other Factors that
Affect Consumer Satisfaction with Medical Care". *Journal of Medical Education*
52(10):793-801.

Wechsler, Henry, Nancy A. Rigotti, Jeana Gled-Hill Hoyt, and Hang Lee. 1998.
"Increased Levels of Cigarette Use Among College Students". *Journal of
American Medical Association* 280(19):1673-1678.

Wilcove, Gerry and W. Harry Sharp. 1971. "Differential Perceptions of a College
Counseling Center". *Journal of Counseling Psychology* 18(1):60-63.

Yamawaki, Niwako. 2010. "The Effects of Self-Construal and Masculinity vs.
Femininity: A Comparison of American and Japanese attitudes Toward Mental
health Services". *Journal of Mental Health Counseling.* 32(2):134-167.

Yang, Choa-Chin and Wen-Bin Chiou. 2010. "Substitution of Healthy for Unhealthy
Beverages Among College Students. A Health-Concerns and Behavioral-
Economics Perspective".*Appetite* 54(3):512-516.

APPENDIX

Ben's Great Questionnaire

Familiarity of student disability services battery

Please answer the following questions regarding campus student services

(1)Yes   (2)No   (3)I don't know

(1) Does your campus offer disability services?

(2) Do you know where the physical location of the disability services office is located?

(3) Are you a disabled student?

(4) Do you use the disability services?

(5) Does this campus have a responsibility to offer disability services?

Familiarity of student counseling services battery

Please answer the following questions regarding campus student services

(1)Yes   (2)No   (3)I don't know

(1) Does your campus offer counseling services?

(2)Do you know where the physical location of the counseling services office is located?

(3) If you needed counseling, would you use the campus counseling service?

(4) Does this campus have a responsibility to provide counseling services to students?

Familiarity of student insurance battery

Please answer the following questions regarding campus student services

(1)Yes   (2)No   (3)I don't know

(1) Does your campus offer student health insurance?

(2) Do you know where the physical location of the office that has information about student health insurance is located?

(3) Have you ever used the student health insurance?

(4) Does this campus have a responsibility to provide student health insurance?

Familiarity of student health services/clinic battery

Please answer the following questions regarding campus student services

(1)Yes   (2)No   (3)I don't know

(1) Does your campus have student health services or a student health clinic?

(2) Do you know where the physical location of the student health services or clinic is located? (3) Have you ever used the student health services or student health clinic?

(4) Does this campus have a responsibility to offer student health services or provide a student health clinic?

Familiarity of student academic counseling services battery

Please answer the following questions regarding campus student services

    (1)Yes   (2)No   (3)I don't know

(1) Does your campus offer academic or career counseling services?

(2) Do you know where the physical location of the academic or career counseling office is located?

(3) Have you ever used the academic or career counseling services?

(4) Does this campus have a responsibility to offer academic or career counseling services?

Demographic Questionnaire

Which institution do you attend?

(1)Institution A   (2)Institution B   (3)Institution C   (4)Institution D

(5)Institution E   (6)Institution F   (7) Institution G   (8)Institution

H(9)Institution I   (10)Institution J   (11)Institution K   (12)Institution

L   (13)Institution M

What is your age?   _____

What is your sex?

(1)Male   (2)Female

Please indicate your race.

(1)African   (2)African American/Black   (3)Caucasian/White

(4)Chicano/Latino/Hispanic (5)Middle Eastern   (6)Native American/Alaskan

(7)Native South-East Asian/Pacific Islander (8)Bi-Racial/Multi Racial

Are you the first person in your immediate family (siblings, parents, grandparents) to attend college?

(1)Yes   (2)No

VITA

BENJAMIN A. MARTIN

Personal Data:	Date of Birth: January 29,1980
	Place of Birth: Lynchburg, Virginia
Education:	B. S.Psychology, East Tennessee State University,
	Johnson City, TN2009
	M. S. Sociology, East Tennessee State University, Johnson
	City, TNSociology, M. S., May 2012
Other Experience:	Ronald McNair Post Baccalaureate Research Internship
	Summer 2008 through Spring 2009. Director: Dr. Ronnie
	Gross. http://www.etsu.edu/mcnair
	Research Assistant to Leslie McCallister, Sociology
	Department Chair, email: mccalis@etsu.edu, ph: 423-439-
	4998, Fall 2010-Fall 2011.
Publications:	Martin, Benjamin A. & Chris S. Dula (March, 2010). More
	than skin deep: Perceptions of and stigma against tattoos.
	College Student Journal. 44 (1), 200-206.
	Dula, Chris S., Benjamin A. Martin, Russell T. Fox, and
	Robin L. Leonard (2011).Differing types of cellular phone
	conversations and dangerous driving.*Accident Analysis and*
	Prevention. 43 (1), 187-193.