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Evaluation Of College Counseling Websites Regarding Suicide Prevention/Depression Referral Services

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Eastern Illinois University

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Evaluation of College Counseling Websites Regarding
Suicide Prevention / Depression Referral Services

By

Heather L. Zike

Thesis

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

Master of Science in COLLEGE STUDENT AFFAIRS

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY

CHARLESTON, ILLINOIS

JULY 2011

Evaluation of College Counseling Websites Regarding

Suicide Prevention / Depression Referral Services

(TITLE)

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Heather L. Zike

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Master of Science in College Student Affairs

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS

2011

YEAR

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Abstract

An abstract of the thesis of Heather L. Zike for the Master for the Master of Science in College Student Affairs, Department of Counseling and Student Development, presented on July 12, 2011 at Eastern Illinois University.

TITLE: Evaluation of College Counseling Websites Regarding Suicide Prevention / Depression Referral Services

MAJOR PROFESSOR: Dr. James Wallace

The purpose of this study was to (1) determine if the 12 public colleges and universities within the state of Illinois contained information on their counseling websites in regards to topics of depression and suicide (2) examine if the websites contained self-evaluations for depression (3) determine if the website contains external links that are highly regarded informative links for depression and suicide among college students, (4) information for faculty / staff to make referrals, and (5) information for family and loved ones to make referrals.

ACKNOWLEDGMENTS

There are many people I would like to thank for this opportunity, their time and assistance in helping me to complete my dream.

Dr. Wallace has been an amazing advisor and literally been there for me from the very beginning of this process and many steps along the way from admissions, going from a part-time student into a full-time student, HBCU Tour Summer 2006, all of my advising needs and finally the completion of my thesis. Dr. Wallace's words are what I will remember being the encouraging words that I needed when I did not know if I had what it took to make it as a full time student, new mom, and making many difficult decisions.

Special thanks to Dr. Dan P. Nadler and President Louis V. Hencken for your time in assisting me with my thesis and serving on my committee. It was an honor to have you on my committee and to be able to sit in your classrooms.

I would also like to thank all my professors for the great times and the best experiences that I could have asked for during Graduate study. Dr. Charles Eberly, Dr. Barbara Powell, and Dr. Andrew Wall have truly made this such a great experience that I continue to recommend you to others.

Last but by no means least, I want to thank my family and friends who helped with the kids so that I could attend classes, events, and put many hours into my thesis. I dedicate this work to my wonderful husband Greg Zike. If it were not for your love, support and encouragement, I do not feel that I would have ever made it through to the

end. You were always there continuing to encourage me to do everything I could to complete my degree. I love you so much and feel blessed everyday because I have you in my life. Jacob, Gabriella, and Alexandra, I want you to know that I love you all very much and that this hard work was just as much for you. The five of us will continue to make many great memories. I am excited to enjoy the now with you and look forward to our future and all of our new memories we will create together.

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Chapter I

Introduction

Suicide is forever while depression may come and go. Significant money, professional staff time and other institutional efforts on college campuses are put into suicide prevention and depression treatment along with phenomena such as alcohol, other drug abuse, and gambling. National, state and local figures from U.S. Department of Health and Human Services, Illinois Department and Public Health, Illinois Board of Higher Education and the state universities that were evaluated contributed information on the phenomenon of suicide and depression among college students for the present study. These groups recognize how difficult depression and suicide data are to collect primarily because of the private nature of each incident. However, most college and university counseling centers report increasing need by students seeking services and diagnosis for mental health issues (Pavela, 2006).

While depression is a severe issue that could lead to suicide, researchers have discovered that depression could go hand-in-hand with common problems students' experience that either directly or indirectly related to life in the academy. On a college campus, experiencing depression can reflect a wide range of difficulties; such as, poor academic performance, alcohol use and abuse, recreational drug use, sleep disorders, eating disorders, risky sexual behaviors, negative retention rates, and even suicide. The worst case scenario for a student experiencing depression is suicide.

Depression is the most common symptom among college students with 44% of American college students having these feelings (Borchard, 2010). Depression is one of

the most common symptoms because it covers such a vast array of disorders: major depressive disorder or unipolar depression, dysthymia, bipolar disorder, seasonal affective disorder, postpartum, mood disorder due to a general medical condition, and substance-induced mood disorder (Brees, 2008). Estimates show that one out of four college students are suffering from some form of mental illness that is diagnosable. Based on this calculation, the number of students enrolled at the 12 public universities and colleges in Illinois during the fall of 2009, it would be safe to estimate that 51,195 students would be suffering from a diagnosable mental illness and 90,103 having feelings of depression. According to the American Foundation for Suicide Prevention, suicide is the second-leading cause of death among college students and the third-leading cause of death among all youth 15 to 24 years. In 2011, Grasgreen determined that more than 4,000 people in that age range commit suicide each year; eleven hundred of them are college students.

Continuous changes occurring on college campus is a reason why students have a need for resources of which students want to take advantage. For example, the use of the internet for resources in many areas of life is a common phenomenon and communication for almost everyone at any time is instantaneous, thanks to the advent of cellular technology. Therefore, it is time an examination of counseling center websites be undertaken. Specifically, (1) we must determine whether college / university counseling websites contain sufficient information that would assist students dealing with thoughts of suicide and feelings of depression; (2) assess whether counseling center websites have unique strengths and weaknesses affecting user

friendliness; and (3) identifying websites that provide interactive, private self-evaluations and directions for further assistance from campus resources.

Purpose of Study

The primary purpose of the present study was to examine college counseling center websites regarding information on depression and suicidal ideations. A secondary purpose was to determine whether institutional counseling center websites contained self-evaluations or links that facilitate student use of depression and suicide prevention information and services.

The following review of literature contains information pertaining to depression / suicide among college students, counseling center internet usage and the evaluation of websites. An evaluation tool created by Leslie Teach was used to rate whether an institution's counseling center website was an effective mental health site (Teach, 1998). Effective, in this case, suggests that a rating of 90% or higher equals excellence. Excellence is based on a site containing mental health information that users find easily accessible and understandable. In addition, users of the website do not hesitate to recommend the site to others. A review of what programs exist and how those would be pertinent for use of information about depression among college students were the focus of the present study.

Research Hypothesis / Questions

It was hypothesized that there would not be enough information for students to get the assistance they need to assist them with depression and suicide prevention. According to Andrew Wall (A. Wall, personal communication, spring semester, 2006),

there exists a general perception that talking about depression, even with family, friends or professionals is a social taboo. This taboo component makes it just as hard, if not impossible, for college students to discuss with anyone the possibility that they are suffering from depression.

The research questions that guided the present inquiry were as follows:

- (1) Do counseling center websites for the 12 state universities contain sufficient information for student seeking information on depression and suicide?
- (2) Do counseling center websites for the 12 state universities contain interactive health communication links such as self-evaluations in the determination of mental health disorders?
- (3) Do counseling center websites for the 12 state universities contain referral information for use by faculty and staff?

Limitations of the Study

Limitations to the present study include (1) only the counseling center websites of the 12 public universities in the state of Illinois were evaluated, (2) an evaluation tool created for health websites in general was used, (3) only one researcher evaluated the websites, and (4) some data were not as current as the evaluations of the website.

Significance of the Study

The significance of the present study lies in the fact that it may be the first study devoted exclusively to the evaluation of the 12 state university counseling center websites in Illinois. In addition, the study was designed to specifically assess the

presence or absence of mental health information pertaining to depression and suicide.

The following statistics lend credence to the need for the present study.

Suicide is the third leading cause of death among Americans ages 10 to 24 years. Suicides account for 12.9% of all deaths among young people aged 15 to 24 years. An estimated 1 in 12 college students has made a suicide plan, and approximately 1,000 students die by suicide on college campuses each year (Taliaferro, Rienzo, Pigg, Miller, & Dodd, 2009, p. 427).

Over the past 60 years, the overall rate of suicide among adolescents has tripled, making it the third leading cause of death among 15 to 24 year olds and the second leading cause of death among college-age students. Research estimates project 1,088 suicides to occur on college campuses each year. Data from a recent survey conducted by the American College Health Association (ACHA) show that 9.5% of the 16,000 students surveyed have seriously contemplated suicide and 1.5% have made a suicide attempt. Depression, sadness, and hopelessness seem to play a major role when a student feels suicidal, although there are a number of additional risk factors related to college-student suicide (National Mental Health Association, 2002).

Recognizing the increased use of internet resources among college students and the need for information regarding depression, a standard among colleges certifying

their health related websites to insure accurate, helpful, and up to date information would be important.

Definitions of Terms

Alcohol 101 +: An innovative program that aims to help college students make safe and responsible decisions about alcohol (“Alcohol 101 +,”).

AlcoholEdu: An online alcohol prevention program used on more than 50 college and university campuses nationwide. This Population-Level Prevention program is designed to challenge students’ expectations about alcohol while enabling students to make healthy and sage decisions (“AlcoholEdu,”).

American College Health Association (ACHA): Since 1920, the American College Health Association (ACHA) has linked college health professionals throughout the nation (and more recently around the globe), forming a powerful, collaborative networking base. This unique synthesis of vision and knowledge, of practice and policy, guides and supports health service programs, and professional development (About ACHA,” 2011).

Antidepressants: Any medicine or other mode of therapy that acts to prevent, cure or alleviate mental depression (Wilber, 1993, p.119).

Breadcrumb trail / breadcrumbs: This is a navigational tool usually found at the top of website to track the previous websites and show the user how they were lead to the current location.

Center for Disease Control (CDC): One of the major operating components of the Department of Health and Human Services with the mission of collaborating to create the expertise, information, and the tools that people and communities need to protect

their health-through health promotion, prevention of disease, injury and disability, and preparedness for new health threats (Center for Disease, 2011).

Depression: Mental depression characterized by altered mood. An estimated 3% to 5% of the world's population experiences depression on any given date. There is a loss of interest in all areas that are usually pleasurable outlets such as food, sex, work, friends, hobbies, or entertainment. Diagnostic criteria include presence of depressed mood nearly every day, markedly diminished interest or pleasure in most or all activities, and 3 or more of the following: (1) Poor appetite or significant weight loss; or increased weight gain; (2) Insomnia or hypersomnia; (3) Psychomotor agitation or retardation; (4) Feeling of helplessness; (5) Loss of energy, or fatigue; (6) Feelings of worthlessness, self-reproach, or excessive or inappropriate guilt; (7) Complaints of or evidence of diminished ability to think or concentrate; and (8) Recurrent thoughts of death, suicidal ideation, wish to be dead, or attempted suicide (Wilber, 1993, p. 519-520).

E-Chug: An interactive web tool designed specifically for high school-age teens to examine and receive feedback on beliefs and behaviors related to alcohol use (Student Wellness Center, 2011).

E-Toke: An interactive web survey that is a brief marijuana-specific assessment and feedback tool (Student Wellness Center, 2011).

Family Educational Rights and Privacy Act (FERPA): A federal law from 1974 that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education (Department of Education, 2011).

Health Insurance Portability and Accountability Act (HIPPA): In 1996, there was the first comprehensive Federal protection for the privacy of personal health information. (U.S. Department of Health and Human Services).

Interactive Health Communication (IHC): The interaction of an individual - consumer, patient, caregiver, or professional - with an electronic device or communication technology to access or transmit health information or to receive guidance on a health-related issue ("The science panel," 2008).

Mental Health: The absence of mental illness (Wilber, 1993, p. 1196).

My Student Body: A complete alcohol, drugs, and student wellness program for colleges and universities. It is used by leading public and private universities across the nation to manage institutional risks and positively impact student retention rates ("my student body," 2011).

National College Health Assessment Survey: A nationally recognized research survey that can assist in collecting precise data about students' health habits, behaviors, and perceptions (About, acha," 2011).

Suicide: intentionally and voluntarily taking one's own life (Wilber, 1995, p. 1905).

Virtual Resource Centers (VRC): A website design to assist in the production of web-based applications and e-learning through a central online location.

Chapter II

Review of Literature

Depression and Suicide Information

In May 2001, the first major campaign in the United States to have a suicide prevention strategy was initiated by the former Surgeon General David Scetcher, M.D., Ph.D. Mackenzie, Brown, Wiegel, Mundt, Saewyc, Heiligenstein, Harahan, and Fleming (2011) researched college age students regarding their first psychiatric episode while at college and found that 12-18% of students have a diagnosable mental illness. According to the NCHA, the top 10 factors that impair academic performance among college and university students include depression and anxiety (Mackenzie, al, 2011). In the overall population, suicide is the third leading cause of death among those 15-24 years of age with accidents and homicide above suicide. Among college students, suicide becomes the second leading cause of death. Similarly in the general population, adults between the ages of 18-24 have the highest incidence of reported suicide ideation (Kish, Silverman, & Sourse, 2005). A study of adults age 65 and older regarding the rules of talking to a doctor about depression was conducted by Wittink, Barg, and Gallo in 2006. Their findings suggested that an unwritten rule exists that effectively prevents or seriously hinders an individual (e.g., college student) from seeking help with their depression.

Researchers have sought answers to why suicide and depression are such prevalent issues among the college age population. Dyson and Renk (2006) reported, "The transition itself from home to college places additional life stressors on young

adults as they explore their identity, strive to master new skills, are away from established social support systems, and have increased time demands” (Mackenzie, Brown, Wiegel, Mundt, Saewyc, Heiligenstein, Harahan, & Fleming, 2011, p. 101). According to Gallagher, Zhang, and Taylor (2003), as early as 2003, the National Survey of Counseling Center Directors (N=333) found that 81.4% of directors reported that their centers were seeing more students with serious psychological problems than they were in the prior five years. Concomitantly, counseling directors reported that for the academic year 2002-2003, 40.7% of their clients had severe psychological problems. These same counselors reported 160 student suicides, of which only 31 were current or former counseling center clients. In the above two studies, it was strongly suggested that the majority of enrolled students dying by suicide annually do not seek therapeutic or preventative services from college counseling centers (Kisch, Silverman, & Sourse, 2005).

This information can be assessed as the result of two different scenarios: either students that would commit suicide are not getting the help they need and using the recourses available to them or students are less likely to have a successful suicide if they are in treatment. According to Kisch, Silverman, and Sourse (2005), 1,464 students who reported having seriously considered attempting suicide, only 13.4% reported currently being in therapy. Also, 19% of students out of those that have reported having attempted suicide, also reported being in therapy. The National Mental Health Foundation (2002) found that there are two groups of students at high risk for suicidal ideation and suicide attempts on campus: (1) students with pre-existing mental health

conditions, and (2) students who develop mental health problems during the college years.

Table 1

Risk factors for suicidal behavior and their subcategories

Factors	Various Subcategories of Factors
Psychiatric	<i>Major Depression</i> <i>Other Mood Disorders; such as bipolar disorders</i> <i>Schizophrenia</i> <i>Anxiety and disorders of conduct and personality</i> <i>Impulsivity</i> <i>A sense of hopelessness</i>
Biological and Medical Markers	Family History Altered levels of serotonin Severe and painful illness
Life Events	Loss of a loved one through divorce, separation, or death Bullied in school Victims of violence between intimate partners History of physical or sexual abuse in childhood Sexual orientation through discrimination, stress in interpersonal relations, anxiety about HIV / AIDS, or limited source of support
Social and Environmental	Availability of means Place of residence Employment Immigration status Affiliation to a religion Economic conditions

Note: Adapted from "Self-Directed Violence," In Krug, E., Dahlberg, L., Mercy, J., Zwi, A., & Lozerno, R. (Ed.), 2002, *World Report on Violence and Health*, p. 192-196)

The National Mental Health Association (2002) has identified essential services for addressing suicidal behaviors on campus (1) screening program(s), (2) targeted education programs for faculty, coaches, clergy, and student / resident advisors, (3) broad-based, campus-wide public education, (4) educational programs and materials for parents and families, (5) on-site counseling center with appropriately trained providers, (6) on-site medical services, (7) stress-reduction program, (8) non-clinical student support network, (9) off-campus referrals, if available, (10) emergency services, (11) postvention programs, and (12) medical leave policies. Having a school-based intervention in place could only decrease the possibility of suicides on campus, along with suicide prevention centers. “Educational programming and screening are vital components of a suicide prevention program – and are also components of an overall risk management strategy” (Pavela, p. 26). “Programs have been set up to train school staff, community members and health care providers to identify those at risk for suicide and refer them to appropriate mental health services. The extent of training will vary from program to program, but in all cases a strong link to local mental health services is essential” (Krug, 2002 p. 201-202). Working on the Illinois Suicide Prevention Strategic Plan and towards the 10 goals by meeting the expected goals of Illinois will only assist in meeting the needs of college students within the state. According to Wang, et al (2007), Identification and referral to treatment earlier in the course of a depression may reduce the serious consequences of depression and prevent suicide. Yet, for U.S. populations, the median delay between onset of mental health symptoms and accessing services is 11

years (Wang, Berglund, Olfson, & Kessler, 2004). Despite access to health services on campuses, Eisenberg et al. (2007) showed that 37%-84% of students who screened positive for depression or anxiety did not receive services" (Mackenzie, et al, 2011, p. 102). This research supports the theory that having a screening process in place that is mandatory for students and could decrease the delay of services are essential to best practices.

The National Mental Health created an institutional checklist for suicide programming.

Administration Policies

- ✓ Do we have a mental health management plan in writing?
- ✓ Have we allocated enough financial resources to accommodate the plan and all its components?
- ✓ Do we have a Medical Leave policy in place that includes mental health problems?

Risk-Identification Programs

- ✓ Do we have a screening program in place?
- ✓ Do we have a transitional support program in place for parents and families of incoming students who already have been diagnosed with mental health disorders?
- ✓ Have we trained our faculty, coaches, clergy, and student/resident advisors to identify students who may be at risk for suicide and/or suicidal behaviors?
- ✓ Have we educated our students so that they are able to identify at-risk behaviors within themselves and among their peers?

On-Campus Support Services

- ✓ Do we have an on-site mental health services center? Have we hired providers who are appropriately trained to handle suicidal clients? If not, are we willing to train them?
- ✓ Do we have an on-site medical center with personnel who can prescribe the appropriate psychotropic agents?
- ✓ Do we have a 24-hour emergency service that is accessible to students?
- ✓ Do we have a crisis-management plan in place in the event of a suicide or other trauma on campus?
- ✓ Do we provide students with support programs (e.g., social, academic, etc.)?
- ✓ Have we made our students and faculty aware of exactly what services are offered on campus and in the local community?
- ✓ Have we publicized the names and numbers of on-campus and off-site support providers?

Community-Based Support Services

- ✓ Do we have working relationships with community mental health providers to ensure appropriate off-site referrals? Do we publish their appointment hours and fees? Have we arranged for a sliding payment scale? Do they accept insurance?
- ✓ Have we identified which hospitals / centers in the community are on call to handle any campus emergencies?
- ✓ Does our university website contain links to mental health information and services? (National Mental Health, 2002)

Hopelessness is a term that continues to repeatedly be used among those that have attempted and completed suicide. Williams, Galanter, Dermatis, and Schwartz, (2008) concluded that "Hopelessness appears to be an important symptom even beyond its relationship to suicidality and merits attention and evaluation in student counseling. It is strongly associated with an increased risk of suicide, as well as multiple psychiatric diagnoses, interpersonal and emotional problems and the need for psychiatric medication (p. 318). They suggested that further research is needed to better understand the relationship between hopelessness, mental illness and the use of medication. There is also the association of physical activity to protect against suicidal behavior. "Research clearly indicates a positive association between exercise and psychological health. Physical activity promotes positive emotional well-being including improvement in depressed mood, anxiety and stress, and self-esteem. Evidence suggests that exercise promotes a positive self-image, especially among young people with low self-esteem. Students "engaging in physical activity may protect against suicidality through its effect on psychological well-being" (Taliaferro, Rienzo, Pigg, Miller, & Dodd, 2009, p. 428). Having a relationship with local media and training with the media on the problems with sensationalizing suicides could prevent additional copying suicides. Krug warned that "suicide should not be considered as a normal and acceptable way to leave your problems behind" (p. 203). A study in Turkey resulted in many of the same / similar findings as studies undertaken in the United States. The findings were that "when they cannot cope with school and family problems and those psychiatric symptoms, such as somatization, psychotic symptoms and anxiety disorder

are influential on suicide thought” (Engin, Gurkan, Dulgerler, & Arabaci, 2009, p. 351). Active Minds is a national organization that campaigns on campuses across the United States to help overcome the stigma of talking about mental health issues called Send Silence Packing (Grasgreen, 2011). The goal of this campaign is to get in the faces of students and open up discussions across campuses about suicide.

Internet Usage Information

Currently, the internet is used by almost every college student. Yet, there have not been many studies about the usage of internet mental health resources among college students. Escoffery, Miner, Adame, Butler, McCormick, and Mendell (2005) posited that the internet can help students “obtain health information conveniently to make better decisions about health and medical care, interacting with others over the Internet, and choosing health providers” (p. 183). In 2003 there were over 15 million students taking classes at colleges and universities across the nation. Getting health initiatives out to students through the use of internet resources could result in improvement in their lives. “A national health objective from Healthy Campus 2010 emphasizes the need for health education in colleges and universities. Specifically, the objective is to increase the proportion of college and university students who receive information from their institutions on each of the six priority health-risk behavior areas, including injuries; tobacco; alcohol and illicit drug use; sexual behaviors; dietary patterns; and inadequate physical activity” (p. 183). College students look for certain areas to meet their needs on a website: accuracy, credibility, currency, clarity, and ease of understanding the health content. The study of internet use for health information

among college students resulted in the following recommendations: “incorporate web-based education and programs into university student health, train health staff and students to search the Internet for health information and to evaluate health information on websites, and offer a web portal for common college health issues (187).”

Virtual Resource Centers (VRCs) is an option of a site design that would appeal to college students by having a home page that would have linkages to other information pages.

VRCs are set up in the following format:

- Create links providing access to resources
- They should serve both health professional and health consumers, providing access to general information, statistics, and program ideas and links to resource agencies, the links should be for accessing general information
- Egalitarian access to resources, the site should provide broad dissemination of health promotion resources on a national and international level
- Organization icons
- Continuous feedback, revision, and evolution, the site should provide two-way interaction (Fulop, & Varzandeh, 1996)

Initially, a lot of the information on the internet revolved around websites for people seeking information about health related topics. “In 1997, nearly half of the US spent some time looking for the health information or support on the Internet” (Eng, Maxfield, Patrick, Deering, Ratzan, & Gustafson, 1998). One goal was for everyone to have universal access to health information and support. To develop this, there were

areas that would need to be addressed: component of private-sector health services, federal and state funded health programs, requirements of federal grant programs, as a strategy for public sector agencies –charitable organizations – corporate marketing, and a portion of private and public long-term investment in communities (Eng, et al, 1998). “The problem is not too little information but too much, vast chunks of it incomplete, misleading, or inaccurate, and not only in the medical area” (Silberg, Lundberg, & Musacchio, 1997).

Interactive health communication applications have great potential to improve health, but they may also cause harm. To date, few applications have been adequately evaluated. Physicians and other health professionals should promote and participate in an evidence-based approach to the development and diffusion of IHC applications and endorse efforts to rigorously evaluate the safety, quality, and utility of these resources. A standardized reporting template is proposed to help developers and evaluators of IHC applications conduct evaluations and disclose their results and to help clinicians, purchasers, and consumers judge the quality of IHC applications (Robinson, Patrick, Eng, & Gustafson, 1998).

The Internet Goes to College Summary of Findings

College Students are early adopters and heavy users of the Internet.

College students are heavy users of the Internet compared to the general population. Use of the Internet is part of college students’ daily communication habits and has become a technology as ordinary as the telephone or television.

- One-fifth of today's college students began using computers between the ages of 5 and 8. By the time they were 16 to 18 years old, all of today's current college students had begun using computers – and the internet was a commonplace in the world in which they lived.
- 86% of college students have gone online, compared with 59% of the general population.
- College students are frequently looking for email, with 72% checking email at least once a day.
- The great majority of college students own their own computer, and two thirds use at least two email addresses.
- 78% of college Internet users say that at one time or another they have gone online just to browse for fun, compared to 64% of all Internet users.
- College students say the Internet has enhanced their education. They use the Internet to communicate with professors and classmates, to do research, and to access library materials.
- 79% agree that Internet use has had a positive impact on their college academic experience.
- 46% of college students agree that email enables them to express ideas to a professor that they would not have expressed in class.
- 73% of college students say they use the Internet more than the library, while only 9% said they use the library more than the Internet for information searching.

- 48% are required to use the Internet to contact other students in at least some of their classes.
- 68% reported subscribing to one or more academic-oriented mailing lists that relate to their studies.
- 58% have used email to discuss or find out a grade from an instructor.
- 65% have emailed a professor to report absences (Jones, 2002).

The longer the internet is around, the increase in use by college students will only continue to grow. Now it is not even the access via computers that colleges need to be concerned with but can students access the same information in a readable format on their smart phones? There is much to consider, but an outline assessment of an effective site geared towards the college student community could potentially affect millions.

Evaluation of Websites

Health on the Net Foundation (HON) has what is referred to as the HONcode. According to the 2010 HON survey, 96% of English speaking individuals believe in their right to access reliable medical information on the internet. It is an evaluation of health websites that gives accreditation to the site evaluated. Evaluation of websites is an issue that has been discussed since the inception of the internet but without a lot of follow through regarding any kind of assurance on the accuracy of what is put on the web. In 1997, the problem was realized that there was no governing body or authority to act as a gatekeeper of web page publications. According to Pealer and Dorman (1997), this lack of consistent evaluation and oversight, in addition to ease of

publication, lead to inaccurate health-related publications on this new mass medium, causing concern for health education professionals. Evaluating websites has evolved from the simplicity of looking at technical considerations, purpose, content, authorship / sponsorship, functionality, and design / aesthetics (Abdullah, 1998). Kim, Eng, Deering, and Maxfield (1999) provided the following checklist of criteria for groups to consider when reviewing a website:

- ✓ Content of site (includes quality, reliability, accuracy, scope, depth)
- ✓ Design and aesthetics (includes layout, interactivity, presentation, appeal, graphics, use of media)
- ✓ Disclosure of authors, sponsors, developers (including identification of purpose, nature of organization, sources of support, authorship origin)
- ✓ Currency of information (includes frequency of update, freshness, maintenance of site)
- ✓ Authority of source (includes reputation of source, credibility, trustworthiness)
- ✓ Ease of use (includes usability, navigability, and functionality)
- ✓ Accessibility and availability (includes ease of access, fee for access, stability)
- ✓ Links (includes quality of links, links to other sources)
- ✓ Attribution and documentation (includes presentation of clear references, balanced evidence)
- ✓ Intended audience (includes nature of intended users, appropriateness for intended users)

- ✓ Contact addresses or feedback mechanism (includes availability of contact information, contact address)
- ✓ User support (includes availability of support, documentation for users)
- ✓ Miscellaneous (includes criterion that lacked specificity or were unique)

A constant reminder when using the internet would be to remember that websites are ever evolving and so should the tools used to evaluate websites. When discussing the two key components of internet credibility, Fogg, Marshall, Laraki, Osipovich, Varma, Gang, Rangnekar, Shon, Swani and Treinen (2001) identified trustworthiness and expertise as what the users look for to have a sense of credibility.

Summary

The above literature review provided solid facts regarding the problem of suicide among college students and prevention methods that could be made available to students via college counseling center websites; the acknowledgements of the continual increase in use of the internet among college students; and the identification of assessment tools for the websites that are available to users with limited ability to evaluate or certify such sites. It also contains information regarding how colleges and universities can start the development of a site that would meet the needs of students to evaluate themselves regarding depression, thus assisting in the prevention of suicide. In addition, the literature contains information that suggests how sites could also be used as tools to help those who support students and their significant others (e.g., family and friends) in making contact with professionals who could assist students at risk for suicide. Knowing what is considered in the evaluation of health websites will

help institutions in higher education in creating ideal websites for students in the sensitive areas of depression and suicide. Currently, the published literature does not contain much research about internet usage among college student or on how to evaluate counseling center websites for mental health information and resources. Therefore, it is obvious that there is a need for research and high standards for this area of information delivery.

Chapter III

Method of Data Collection

For the present study, data were collected through examination of the websites for the 12 public, state universities in Illinois. Specific attention was given to each institution's counseling center's website information regarding depression and suicide and accessibility to self-evaluation tools. The evaluation (Appendix A) was completed by the primary researcher of the present study. It was conducted within a 5 day period during June 2011. Each question was examined simultaneously for purposes of consistency. Specifically, each website was examined with regard to each inquiry before any additional survey items were addressed.

Design of the Study

The design of the present study was based on the adaptation of an evaluation of health related websites created by Leslie Teach at Emory Rollins School of Public Health (1998) in light of the mental health services currently provided by college and universities, with several adaptations of additional questions. The adaptations were necessary as institution specific information was needed for the present study and can be seen in Appendix A. Specifically, the original evaluation does not contain questions asking whether the website was viewable on a mobile device. Added questions included whether specific topic headings were available under depression and suicide. Also, all sites were reviewed to see if there was a self-evaluation or a referral to an external self-evaluation to screen for depression or suicide prevention.

Participants

The websites of the 12 state, public universities within the state of Illinois served as the focus of the present study. On each of these websites, information related to suicide and depression referral information were examined. With regard to the state universities included in the present study, total enrollment for the 2009 school year was 204,781 students (Illinois Board of Higher Education, 2011).

Instrument

Data for the present study were collected in two ways. First, the health-related website evaluation form originally published in 1998 by L. Teach at the Emory Rollins School of Public Health served as the primary assessment tool. Holmgren (2002) cited this assessment tool as an important tool-based user evaluation guide and used sections of this tool in their assessment of websites. L. Teach is also listed among others as being a good resource for evaluating online health information. Although the survey instrument is described as long and complex, it can be a convenient form when first evaluating websites. Second, the primary researcher engaged in a visual assessment along with physical attempts to access information contained on each website. In general, the researcher sought to determine the presence of specific information on depression and suicide; information for parents; faculty and staff referral directions; self-evaluations; and external links to resources both internal and external to each institution.

Treatment of Data

To calculate the website's total score, individual components of each website were given a score. For example, the presence of a link for information regarding mental health resources rated the institution's website a score of two. In addition, the requirement that the link was active rated the institution's website an additional two points. The total number of points possible for the presence of all working components for any institution's website was 86. However, not all items contained on the evaluation form were applicable to each institution website. Total points possible was defined as the number of items answered as either agree or disagree multiplied by two. The total score must then be divided by the total number of points possible to determine the overall rating of the website.

Chapter IV

Findings

The importance of the internet has only continued to grow among those in the higher education environment. At this time, more than 50% of the U.S. population has computers in their homes and almost 100% of college students use the computer. This proves an increase need for reliable information to the consumers. Currently, students starting college are members of the first 24 / 7 connected generations. This fact lends credence to the notion of the universal importance of the internet to today's millennial students. Students expect to have the information they want immediately and to have the ability to access the needed information using any device ranging from a personal computer to a smart phone. The present research was conducted to determine how the 12 public institutions of higher education in that state of Illinois rated on providing information via their counseling center websites to students in regards to suicide prevention and depression referral.

Institutions and Websites Reviewed

The 12 public institutions of higher education in the state of Illinois and their counseling center websites were reviewed for the purpose of the present study as follows.

Institutions	Website Reviewed
Chicago State University	www.csu.edu/dosa/counselingcenter/
Eastern Illinois University	www.eiu.edu/counscctr/
Governors State University	www.govst.edu/sas/t_stu_dev.aspx?id=933
Illinois State University	counseling.illinoisstate.edu/
Northeastern Illinois University	www.neiu.edu/~counsel/
Northern Illinois University	www.niu.edu/csdc/
Southern Illinois University - Carbondale	shc.siuc.edu/index.htm
Southern Illinois University - Edwardsville	www.siue.edu/counseling/
U of Illinois - Chicago	www.uic.edu/depts/counseling/index.shtml
U of Illinois - Urbana / Champaign	www.counselingcenter.illinois.edu
U of Illinois - Springfield	www.uis.edu/counselingcenter/
Western Illinois University	www.wiu.edu/student_services/ucc/

Results of Questions

Section I of the evaluation collected the institution's website information, identified the intended audience, and noted what the objectives were for each site.

There was no scoring for this section of the evaluation.

Section II of the evaluation contained the scoring of the content of each site and consisted of six questions. The first four questions were all scored similarly with the

exception of two institutions whose purposes for their website were not clearly stated. One question was consistently not applicable to the evaluation since no site was opinionated. All sites scored two's in regards to the fact that information covered did not appear as an infomercial and no bias was evident.

1. The purpose of the site is clearly stated or may be clearly inferred.

2 sites disagreed

10 sites agreed

2. The information covered does not appear to be an informational.

12 sites agreed

3. There is no bias evident

12 sites agreed

4. If the site is opinionated, the author discusses all sides for the issue, giving due respect.

Not applicable

5. All aspects of the subject are covered adequately.

8 sites disagreed

4 sites agreed

6. External Links are provided to fully over the subject.

4 sites disagreed

8 sites agreed

Section III of the evaluation scored the accuracy of the information provided.

There were three questions in this section and across all sites one was not applicable.

The non-applicable question was whether the information was accurate and all websites scored a zero. All sites scored ones' for the additional questions because no sites had documented sources or were accredited by the HONcode of principles.

7. The information is accurate

Not applicable

8. Sources are clearly documented.

12 sites disagreed

9. The website states that it subscribes to HON Code principles.

12 sites disagreed

Section IV of the instrument contained three questions related to the authorship of the site. All sites scored a two for being associated with an institution and for including contact information. All sites scored a zero for providing any individual, author's / editor's credentials information.

10. The site is sponsored by or is associated with an institution or organization.

12 sites agreed

11. For sites created by an individual, author's / editor's credentials are clearly stated.

Not applicable

12. Contact information for the author / editor or webmaster is included.

12 sites agreed (only two have a webmaster contact)

Section V of the survey instrument contains two questions used to determine whether the site was current. Most sites had a copywrite date instead of a publication date.

13. The date of publication is clearly posted.

3 sites disagreed

9 sites agreed

14. The revision date is recent enough to account for changes in the field.

10 sites disagreed

2 sites agreed

Section VI contains four questions about the audience of the website.

15. The type of audience the author is addressing is evident.

12 sites agreed

16. The level of detail is appropriate for the audience.

4 sites disagreed

8 sites agreed

17. The reading level is appropriate for the audience.

12 sites agreed

18. Technical terms are appropriate for the audience.

1 site disagreed

11 sites agreed

Section VII contained six questions regarding the navigation for the site. However, there were two questions that were not applicable to any institution's website and were not clear enough to use in the current evaluation.

19. Internal links add to the usefulness of the site.

2 sites disagreed

10 sites agreed

20. Information can be retrieved in a timely manner.

5 sites disagreed

7 sites agreed

21. A search mechanism is necessary to make this site useful.

Not applicable. The question was not defined enough for information access.

22. A search mechanism is provided.

11 sites disagreed

1 site agreed

23. The site is organized in a logical manner.

8 sites disagreed

4 sites agreed

24. Any software necessary to use the page has links to download software from the internet.

Not applicable

Section VIII viewed the external links that were used to enhance the information provided on the site. This section contained six questions.

25. Links are relevant and appropriate for this site

1 site disagreed

9 sites agreed

2 sites not applicable

26. Links are operable.

1 site disagreed

9 sites agreed

2 sites not applicable

27. Links are current enough to account for changes in the field.

1 site disagreed

9 sites agreed

2 sites not applicable

28. Links are appropriate for the audience.

1 site disagreed

9 sites agreed

2 sites not applicable

29. Links connect to reliable information from reliable sources.

1 site disagreed

9 sites agreed

2 sites not applicable

30. Links are provided to organizations that should be represented.

4 sites disagreed

8 sites agreed

Section IX contains eight questions about the structure of the websites. One question was not applicable for this evaluation. This is a section that would evolve with the advancement of technology and a couple of questions were added to account for the advancement of technology.

31. Educational graphics and art add to the usefulness of the site.

10 sites disagreed

2 sites agreed

32. Decorative graphics do not significantly slow downloading.

8 sites agreed

4 sites not applicable

33. Text-only option is available for text-only web browsers.

11 sites disagreed

1 site agreed

34. Usefulness of site does not suffer when using text-only options.

1 site agreed

11 sites not applicable

35. Options are available for disabled persons.

11 sites disagreed

1 site agreed

36. If audio and video are components of the site, and cannot be accessed, the information on the site is still complete.

Not applicable

37. Mobil optimized website is available.

1 site disagreed

11 sites agreed

38. The site has a breadcrumb trail.

9 sites disagreed

3 sites agreed

Section ten was an added section to review specific content for the purposes of the present research.

39. Site contains specific information titled under a heading for depression.

3 sites disagreed

9 sites agreed

40. Site contains specific information titled under a heading for suicide.

3 sites disagreed

9 sites agreed

41. Site contains or refers to a self-evaluation to determine depression or a suicide prevention questionnaire.

4 sites disagreed

8 sites agreed

42. Site contains information for parents / family to seek information to refer their student to services if needed.

9 sites disagreed

3 sites agreed

43. Site contains information for faculty / staff to seek information to refer a student to services if needed.

5 sites disagreed

7 sites disagreed

Institutions Website Evaluation Scores

Institutions	Website Evaluation Score	
Chicago State University	67%	Poor
Eastern Illinois University	84%	Adequate
Governors State University	67%	Poor
Illinois State University	89%	Adequate
Northeastern Illinois University	88%	Adequate
Northern Illinois University	85%	Adequate
Southern Illinois University - Carbondale	74%	Poor
Southern Illinois University - Edwardsville	86%	Adequate
U of Illinois - Chicago	83%	Adequate
U of Illinois - Urbana / Champaign	75%	Adequate
U of Illinois - Springfield	88%	Adequate
Western Illinois University	85%	Adequate

Excellent scores are 90% or higher. Consumers will be able to easily access and understand the information contained within this website.

Adequate scores are scores of 75% up to 89%. The website provides relevant information and can be navigated without much trouble; it might not be the best site available.

Poor scores are scores of 74% or lower. These websites should not be recommended to users because validity and reliability cannot be confirmed.

Chapter V

Discussion, Recommendations, and Conclusion

Discussion

Depression and suicide are subjects that affect a large segment of the student population in higher education. In 2009, the student population of the 12 public colleges and universities of Illinois was 204,781 (Illinois Board of Higher Education). Using the national data of suicides committed each year by college students, it can be estimated that approximately 18 lives ended by suicide within the population of the 12 public colleges and universities of Illinois (Illinois dept of Public Health). An overall look of all college students within the state of Illinois in 2009 would suggest that there could have been approximately 68 student deaths by suicide. In regards to the institutions, they can only continue to increase the awareness of the seriousness of these subjects.

The first question required an examination of the counseling center websites with a specific focus on the information that would assist students in dealing with thoughts of suicide and feelings of depression. At the conclusion of the evaluation, there was not one institution within the public higher education institutions in Illinois that rated an excellent review. An excellent review is the highest that could be scored and would mean that the website is considered an excellent source of information on the topic. Nine schools were rated as adequate; which mean that relevant information is provided and navigation around the site is manageable without much trouble. Yet, it is not considered to be the best site available to find information on the topic desired.

Three sites were considered poor and should not be recommended to users for the purposes of seeking specific information regarding self-evaluation components.

Secondly, the researcher sought to identify user friendly strengths and weaknesses of the college counseling centers websites. The sites varied a great deal in what types of information they provided to students. Several websites only contained information as to where counseling centers were located and how to contact them for an appointment. One area considered was whether there were internal links for specific topics under the title of depression and suicide. While these two topics are greatly related, they are not always hand-in-hand and websites should contain separate information and referrals that can and should be given to students. Nine sites had a specific heading for suicide and another specific heading for depression. This question was examined separately and not all nine were found to have had the separate links or information categories. The results did vary among the different sites but seemed equal in that three sites also were rated disagreed with having separate titles for the two headings of information. Some of the sites contained information of both suicide and depression but included both types of information under just one title. The last area noticed of significant difference among the websites was referrals for family and friends of a student in need or for places for faculty and staff to make referrals for a student. Only three sites listed referral information for parents, family, or friends to find out how to make a referral of a student for that institution. This is compared to seven sites having referral information for faculty and staff.

Recommendations

All counseling center websites should be reviewed to assess whether they contain current information and interactive self-evaluations. Of the twelve sites reviewed, all were launched some time ago, but only eight of the sites contained a self-evaluation for depression or suicide prevention. There are free external options that counseling centers could have on their website so that students could have access to a self-evaluation tool to determine depression. One frequently used was ULifeline. It was also noted that many campuses use other interactive programs such as Alcohol.edu, e-toke and e-chug for self-evaluations of marijuana use and alcohol use, along with popular online health programs such as Alcohol 101 Plus and My Student Body. It would be presumed that the reason for these interactive self-evaluation programs would be because these anonymous methods appeals to the college student population.

Recommendations

Recommendations for the 12 public universities and colleges include the following:

(1) Create or develop a template of important information that should be available to all students on college counseling center websites. The information that should be included in the template would be the following:

- Contact information of the counseling center
- Purpose of the site to be clearly stated on the home page
- All pertinent topics covered under separate internal links (i.e. depression and suicide)

- Staff of the center
- Published date, last updated date, copy write date
- Webmaster contact information
- Author of site listed along with their credentials
- Sources of information and statistics sited
- Accreditation by an outside source
- External links that would assist with the information provided
- A text only, large print, and audio option
- A mobile optimized website
- Breadcrumb trail
- Self-evaluations or external links to self-evaluations
- Referral services family, friends, facility and staff

(2) Include above key elements as they seem to vary between the different institutions included in the present study. It is therefore recommended that the list compiled be one of best practices for college and university websites, similar to what exists for the many practices and programs recognized by national and state organizations which have as their primary concern the collegiate experiences of all students.

(3) Institutional website designers should include evaluation tools such as self-inventories or self-evaluations, with links to national, state and local support agencies for anyone concerned with depression and suicide among college and university students.

(4) Because there currently seems to be no published evaluation tool specifically designed for college and university counseling center websites, one should be created for these special entities with specific links to mental health issues.

(5) Future researcher in the area of websites as communication media for information on depression and suicide among college students should reflect institutional concern, links to sources external and internal to the university setting, and other specific links to mental health support.

(6) For institutional data only, website designs should include a means of counting the number of times the site has been accessed specifically using the link to information on suicide and / or depression.

Content Summary

The present study was an examination of the contents and user friendliness of the counseling center websites of the 12 state, public universities of Illinois regarding mental health issues; specifically, depression and suicide. The literature reviewed contained statistics that suggest a high incidence of diagnosable mental illness among college students nationwide. For example, the incidence of students using internet resources has only increased slightly over the years. Whereas in 2002, 83% of college students reported using the internet as their primary source of information regarding depression and suicide, by 2005 this figure had increased to 98%. Findings in the current study are in keeping with the findings a prior research in this area.

In addition, the literature on website evaluation criteria that addresses strengths and weaknesses of counseling center websites is not very comprehensive or extensive primarily due to the ever increasing advancement in technologies.

Although the purposes of the present study included an assessment of counseling center websites and information contained therein related to suicide and depression, there is no universal accreditation standard superimposed on colleges and universities regarding the offering of this information.

Findings from the L. Teach website evaluation tool are included and indicate that not one of the 12 sites examined rated a score of excellent. However, nine websites were rated adequate and the remaining three were rated as poor. As a result, the study shows that all 12 websites could use improvement; specifically as it related to depression and suicide among students.

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APPENDIX A
Evaluation

Health-Related Website Evaluation Form

I. Website information

Title of site:

Website address:

Whom do you think is the intended audience?

What do you think the objective is for this site?

Circle the number which you feel best represents the site: 1 = disagree, 2 = agree, 0 = not applicable (N/A). Add up the total points scored for each page at the bottom of each page.

II. Content

	Disagree	Agree	N/A
1. The <u>purpose</u> of the site is clearly stated or may be clearly inferred.	1	2	0
2. The information covered does not appear to be an "infomercial" (i.e., an advertisement disguised as health education).	1	2	0
3. There is no bias evident.	1	2	0
4. If the site is opinionated, the author discusses all sides of the issue, giving each due respect.	1	2	0
5. All aspects of the subject are covered adequately.	1	2	0
6. <u>External Links</u> are provided to fully cover the subject (if not needed, circle 0).	1	2	0

III. Accuracy

7. The information is <u>accurate</u> (if not sure, circle 0).	1	2	0
8. Sources are clearly documented.	1	2	0
9. The website states that it subscribes to <u>HON code</u> principles.	1	2	0

Page Score _____

IV. Author

Disagree Agree N/A

- | | | | |
|--|---|---|---|
| 10. The site is sponsored by or is associated with an institution or organization. | 1 | 2 | 0 |
| 11. For sites created by an individual, author's/editor's credentials (educational background, professional affiliations, certifications, past writings, experience) are clearly stated. | 1 | 2 | 0 |
| 12. Contact information (email, address, and/or phone number) for the author/editor or webmaster is included. | 1 | 2 | 0 |

V. Currency

- | | | | |
|---|---|---|---|
| 13. The date of publication is clearly posted. | 1 | 2 | 0 |
| 14. The revision date is recent enough to account for changes in the field. | 1 | 2 | 0 |

VI. Audience

- | | | | |
|--|---|---|---|
| 15. The type of audience the author is addressing is evident (academic, youth, minority, general, etc.). | 1 | 2 | 0 |
| 16. The level of detail is appropriate for the audience. | 1 | 2 | 0 |
| 17. The <u>reading level</u> is appropriate for the audience. | 1 | 2 | 0 |
| 18. Technical terms are appropriate for the audience. | 1 | 2 | 0 |

VII. Navigation

- | | | | |
|---|---|---|---|
| 19. Internal <u>links</u> add to the usefulness of the site. | 1 | 2 | 0 |
| 20. Information can be retrieved in a timely manner. | 1 | 2 | 0 |
| 21. A <u>search mechanism</u> is necessary to make this site useful. | 1 | 2 | 0 |
| 22. A <u>search mechanism</u> is provided. | 1 | 2 | 0 |
| 23. The site is organized in a logical manner, facilitating the location of information. | 1 | 2 | 0 |
| 24. Any software necessary to use the page has links to <u>download</u> software from the Internet. | 1 | 2 | 0 |

Page Score _____

VIII. External Links

	Disagree	Agree	N/A
25. <u>Links</u> are relevant and appropriate for this site.	1	2	0
26. <u>Links</u> are operable.	1	2	0
27. <u>Links</u> are current enough to account for changes in the field.	1	2	0
28. <u>Links</u> are appropriate for the audience (e.g. sites for the general public do not include links to highly technical sites).	1	2	0
29. <u>Links</u> connect to reliable information from reliable sources.	1	2	0
30. <u>Links</u> are provided to organizations that should be represented.	1	2	0

IX. Structure

31. <u>Educational graphics</u> and art add to the usefulness of the site.	1	2	0
32. <u>Decorative graphics</u> do not significantly slow downloading.	1	2	0
33. Text-only option is available for text-only Web browsers.	1	2	0
34. Usefulness of site does not suffer when using text-only option.	1	2	0
35. Options are available for disabled persons (large print, audio).	1	2	0
36. If audio and video are components of the site, and can not be accessed, the information on the site is still complete.	1	2	0
*37. Site is a mobile optimized website.	1	2	0
*38. The site contains a breadcrumb trail.	1	2	0

Page Score _____

X. Specific Content for Research

	Disagree	Agree	N/A
*39. Site contains specific information titled under a heading for depression.	1	2	0
*40. Site contains specific information titled under a heading for suicide.	1	2	0
*41. Site contains or refers to an self-evaluation to determine if they are depressed or suicidal as a prevention method?	1	2	0
*42. Site contains information for parents to seek information to refer their student to services if needed.	1	2	0
*43. Site contains information for faculty / staff to seek information to refer a student to services if needed.	1	2	0

Page Score _____

Total score _____

Total number of possible points _____

Percentage of total points _____

To calculate the website's score, the total points scored must be added up as well as total points possible. Total points possible is defined as the number of questions answered as either agree or disagree multiplied by two. The total score must then be divided by the total number of points possible to determine the overall rating of the website.

Total score / Total number of possible points = percentage of total points

Score	Rating
At least 90% of total possible points.	Excellent: This website is an excellent source of information. Consumers will be able to easily access and understand the information contained in this site. Do not hesitate to recommend this site to students.
At least 75% of total possible points.	Adequate: While this website provides relevant information and can be navigated without much trouble, it might not be the best site available. If another source cannot be located, this site will provide good information to students. Care should be taken to discuss with students what information was found on this website and what information is still needed.
Less than 75% of total possible points.	Poor: This site should not be recommended to students. Validity and reliability of the information cannot be confirmed. All information on the site might not be accessible. Look for another web site to prevent false or partial information from being read.

*Denotes questions added to the L. Teach survey by the primary investigator.