What College Students Know About Breast Cancer and Eating Disorders

This study documents what undergraduate students know about the primarily women’s health issues of breast cancer and eating disorders. It was hypothesized that women would know more than men about breast cancer and eating disorders. It was also hypothesized that participants would know more about eating disorders than they would about breast cancer. An independent samples t test revealed that women did in fact know more about eating disorders and breast cancer than did men, and that participants did know more about eating disorders than about breast cancer. Results suggest that although high school students have some knowledge about eating disorders and breast cancer, health teachers might want to focus more on these topics to improve student knowledge even further.

Prior to the 1990s, most medical studies and traditional medical school education focused solely on the “70 kilogram male” (Tschida, 1995). However, in the past 15 years, there has been growing interest and activism devoted to women’s health issues (American Medical Student Association, 2006). Unfortunately, it takes time for activism to trickle down to the educational realm. As recently as 2003, less than half of medical schools offered curriculum specializing in women’s health (Intelihealth, 2003). The number of classes containing health curricular issues at the high school and college level may be even fewer than those in medical schools, especially those concerning primarily women’s issues. In fact, internet searches of these issues reveal few hits. As education is a valuable tool for promoting health (American Cancer Society, 2006), we wondered whether college students have received education about general health issues, including two of the most common women’s health issues—breast cancer and eating disorders.

It is estimated that each day over 1,500 people will die from cancer (American Cancer Society, 2006). Not only does cancer affect the individual who has it, but it also affects the lives of those who love and care about the cancer patient. Breast cancer is one of the leading types of cancer. It is estimated that there will be 212,930 new cases of breast cancer per year; 211,240 of these individuals are women and 1,690 are men (American Cancer Society). Equally alarming is that of these 212,930 new cases, almost a fourth of these breast cancer victims will die (Imaginis, 1997-2006). Breast cancer is the second leading cause of cancer death in women (American Cancer Society; Imaginis, 2006). Although the exact cause of breast cancer is unknown, several risk factors have been identified (American Cancer Society, 2006) including genetics, being female, the consumption of alcohol, lack of exercise, poor eating habits, aging, and when menarche (menstruation) first begins and when it ends (menopause; American Cancer Society; National Breast Cancer Foundation, 2005b; Straub, 2002). However, it is unclear whether individuals know about the risk factors that they can control (e.g., exercise, diet) in order to minimize their chance of developing breast cancer.

In today’s society, the media plays an important role in breast cancer awareness. It is through the media that the general public hears the stories of breast can-

* Faculty supervisor
cer survivors and learns the different methods that can be used to help prevent developing the disease. According to Petersen and Matuschka (2004), as recently as 1991, the media did not educate the public about breast cancer. Breast cancer was viewed as a private topic, not a public one. But due to social change, breast cancer changed from a stigmatized disease to a hot public and political issue (Amaya & Petersen, 2004; King, 2004; Petersen, 2004). One reason the breast cancer portrayal changed was partly due to the publicity of celebrities who had developed and survived breast cancer. McKay and Bonner (2004) commented that the survivors of breast cancer who are publicly known are usually celebrities; average people who are surviving breast cancer usually do not get to tell their story. McKay and Bonner also note that when the media does discuss breast cancer, it focuses on the stories of survival, not on the disease itself. Although it is encouraging that these stories are shared with the public at large, more information about the disease needs to be provided. People need to know what breast cancer is, what causes breast cancer, and what treatments are available. Unless people search for this information, they may not receive it.

Another women’s health issue that has recently garnered much media attention is that of eating disorders. Approximately 11 million people are currently suffering from an eating disorder in the United States (National Eating Disorders Association, 2002). Knight (2004) found that more than 75% of the college female population had binged at some point in their lives. Of these 75%, almost 10% reported that they had attempted to purge their bodies of the ingested food. Katz (2005) found that 91% of college women reported they had dieted to control their weight, and almost a fifth of the women were “always dieting.” The sooner an eating disorder is caught, the easier it is to treat and the success rates are higher (National Eating Disorders Association, 2002). As eating disorders often manifest themselves in college-aged individuals, it is important for college students to acquaint themselves with the warning signs that individuals display when they are on the path to developing an eating disorder.

The best predictor for the development of an eating disorder is continually trying new diets (Martinez-Gonzalez, et al., 2003; White, 2000). An individual who is obsessed with losing weight is likely to have low self-esteem and probably believes that he or she must look like celebrities portrayed in the media in order to look good. A second fairly accurate predictor is eating alone (Martinez-Gonzalez et al., 2003), which also may be a sign of depression. It has been suggested that one risk factor for bulimia is when a vicious cycle forms in which food becomes a source of comfort and relief from depression, but then later the individual feels shame and guilt for consuming so much food, so he or she then purges to make up for binging. Finally, having a maladaptive family structure during childhood may also contribute to the development of an eating disorder (MacMullen & Brucker, 1987). Once again, however, it is unclear how much individuals know about these risk factors.

Previous studies have discussed warning signs, risk factors, prevalence, media influence, and treatment options for breast cancer and eating disorders, but currently there is no research on what college students know about eating disorders and breast cancer. This study is designed to reveal the quantity and quality of knowledge college students have about eating disorders and breast cancer. It is important to know what college students know about eating disorders and breast cancer, because without this information, health promoters and policy makers will not know where to focus their attention in future health decisions. Due in part to media influence, we hypothesized that women will know more than men about eating disorders and breast cancer. We also hypothesized that participants will know more about eating disorders than breast cancer because there has been more media coverage about eating disorders.

Method

Participants

Participants were 148 women and 82 men enrolled in an introductory psychology course at a metropolitan university in the northwest. Students received partial course credit for participation in the experiment. Eighty-three percent of participants were Caucasian, 1% were African-American, 9% were Hispanic, 3.5% were Asian, and 3.5% were Other. Seventy-two percent of participants were freshmen, 21% were sophomores, 5% were juniors, and 2% were seniors.

Materials

Participants were given a health survey that included demographic information (gender, race, classification), as well as 31 questions about breast cancer and 36 questions about eating disorders. Questions were of a true/false nature and were based on common myths about breast cancer (e.g., “breast cancer is contagious,” “all breast lumps are cancerous”) and eating disorders (e.g., “only skinny people can get an eating disorder, people who really need to lose weight never get them”). Participants’ correct responses were summed and a percentage correct for eating disorders and breast cancer was tabulated. The survey was a compilation of questions that came from

**Procedure**

The participants were tested in a large group in a classroom setting. The participants were given 50 min to complete the survey. When the study was completed, the participants were debriefed and excused to leave.

**Results**

A 2 (gender—between-subjects factor) x 2 (% correct eating disorders, % correct breast cancer—within-subjects factor) repeated measures ANOVA was conducted to determine whether there was a significant difference between men and women in their knowledge about eating disorders and breast cancer. As predicted, college students knew more about eating disorders (M = 75.62%, SD = 16.30%) than they did about breast cancer (M = 73.09%, SD = 14.59%); F(1, 226) = 4.64, p < .05, η² = .02. Women knew more about both eating disorders (M = 77.18%, SD = 15.90%) and breast cancer (M = 74.41%, SD = 19.98%) than men did (Mmen = 72.74%, SD = 16.75%; Mmen = 70.65%, SD = 17.00%); F(1, 226) = 5.13, p < .05, η² = .02. There was no interaction between gender and knowledge scores, F(1, 226) = .77.

**Discussion**

The purpose of this study was to ascertain what college students knew about the women’s health issues—breast cancer and eating disorders. Although much is known about the risk factors linked to the development of breast cancer (National Breast Cancer Foundation, 2005b; Straub, 2002) and eating disorders (Martinez-Gonzalez et al., 2003; White, 2000), less information exists about whether college students were aware of these risk factors. We found that only about 50% of the participants were aware of the risk factors related to the development of breast cancer. One explanation for why people are not aware of the risk factors linked to breast cancer is that the media covers survival stories more than it covers prevention techniques (McKay & Bonner, 2004). In focusing on celebrity survival stories, educators neglect to keep the public informed on how to prevent breast cancer from developing and from recognizing the warning signs when it has developed. In fact, in our study, participants struggled with these topics. In addition, only 22% of the participants knew that eating disorders are caused by something other than the desire to lose weight that has gone to an extreme. Participants did not know who was vulnerable to developing an eating disorder, what binge-eating consists of, how to recover from eating disorders, and what the long term consequences are for having an eating disorder.

As predicted, women knew significantly more about breast cancer and eating disorders than men did (although the mean differences were on the order of 5%, which is relatively small). This may be because women may have more firsthand knowledge or personal experience with these issues as they are women’s health issues. Women also might be more likely to discuss these topics with peers or family and obtain more information from those sources. It might also be that the media may tend to target the female population more when covering these topics (e.g., more coverage in traditional women’s magazines than in men’s magazines; Reed, 1990).

As predicted, this study also revealed that the participants knew more about eating disorders than they did about breast cancer. This may be due to media exposure, as individuals are surrounded by advertisements to lose weight, information about celebrity eating habits, and the portrayal of unrealistic body images (Reed, 1990). Breast cancer, on the other hand, has a limited amount of media coverage, and the information that is covered is very select. Thus, it makes sense that college students would know more about eating disorders than they would about breast cancer.

**Limitations**

One limitation to this study is that the findings cannot be generalized to the general public because the majority of the participants were female, White, freshmen, and from a single university. Future research should focus on obtaining information from a variety of age groups and ethnic groups. It would also be beneficial to have approximately the same number of female participants as there are male participants. Finally, it would also be helpful to know where participants get their information and then compare their information source to the accuracy of their responses.

**Conclusion**

Although a substantial number of studies have discussed the risk factors, prevalence, treatment, and media influence on eating disorders and breast cancer, no research had been conducted on what college students know about eating disorders and breast cancer. If students do not know what increases their risk for developing breast cancer, they are not able to take the steps to protect themselves. Also, if students do not know what the warning signs of an eating disorder are, then it is unlikely that they will be able to recognize the symptoms in a friend or loved one. Without recognizing eating disorder symptoms, an individual cannot get a loved one the help he or she may need.
Public awareness is key to improving health. Health educators in high schools and college need to discuss issues surrounding women’s and men’s health, including the risk factors for breast cancer and eating disorders.

References
Reed, B. S. (1990). The link between mobilizing information and service journalism as applied to women's magazine coverage of eating disorders. Paper presented at the Annual Meeting of the Association for Education in Journalism and Mass Communication. (ERIC ED328912)