
by

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Chapter 1: Introduction

Disordered eating and the transition to college

For late adolescents and young adults, transition to college can be both an exciting and stressful phase of their lives. The psychological and emotional distress associated with the need to adapt, thrive and succeed in this new environment concomitant with underlying notions of body dissatisfaction can often trigger maladaptive eating and dieting behavior. Women entering freshman year with high levels of body dissatisfaction were likely to develop worsening patterns of eating behavior across their college career (1,2). A recent study by Hoerr et al. found body mass index (BMI) to be a significant but rather weak predictor for disordered eating in female college students (3). By contrast, an individual's self-perceived body image and figure dissatisfaction were much stronger predictors of eating pathology than objective weight (1,2,3). Dieting and food preoccupation in college women relate more strongly to body dissatisfaction and body esteem than actual weight status.

Although no data on food and weight preoccupation has been collected on University of Wisconsin-Stevens Point (UWSP) students in general, a survey of female UWSP athletes (n=114) conducted in Fall 2004 indicated that 46% of respondents with a normal body weight (BMI between 18.5-24.9 kg/m²) had a desire to lose weight. The intent of the survey was to assess the prevalence of iron deficiency in female athletes but survey questions pertaining to dietary intake revealed that respondents had a tendency to engage in meal skipping behavior, with 18% regularly skipping breakfast and 34% occasionally skipping lunch or supper. Since the degree of weight concern displayed by female intercollegiate athletes and non-athletes has been found to be
similar (4), the survey data in UWSP athletes suggests that a significant fraction of the female student body at UWSP may have distorted body image and would thus be at risk for weight preoccupation, dieting behavior, and restraint eating.

**Purpose of the research**

The purpose of the current research study is to create an intervention to counteract the antecedents to body dissatisfaction, body image ruminations and undue focus on body weight and shape among UWSP undergraduate women. The course, “Women’s Wellness & Vitality”, will explore cultural and media influences on societal standards of beauty while emphasizing the importance of body acceptance in the context of wellness, vitality, and the promotion of a healthy lifestyle.
Chapter 2: Literature Review

Diagnostic criteria for eating disorders and disordered eating

Severe disturbances in eating behavior and perception of body shape and weight characterize anorexia nervosa (AN) and bulimia nervosa (BN). According to the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), the clinical diagnosis of eating disorders is based on specific psychological, behavioral, and physiological characteristics (5). Failure to maintain body weight above 85% of normal weight, fear of weight gain, denial of low body weight and amenorrhea are several of the clinical features for the diagnosis of AN. Some of the diagnostic criteria for BN include recurrent episodes of binge eating over a two hour period accompanied by a feeling of a lack of control, and regular use of compensatory weight loss practices such as fasting, purging, excessive exercise and misuse of laxatives, diuretics, enemas, or other medications. The criteria for diagnosing BN also define a specific time frame for binge eating and inappropriate compensatory behavior, if such practices occur at least twice weekly for a period of three months.

For some individuals, their disordered eating behavior does not meet the full clinical criteria for AN or BN. Females whose body weight fall below 85% of their normal weight but continue to have regular menses, or those who binge eat less than the specified frequency and/or binge eat without using inappropriate compensatory behavior would not fit into the diagnostic criteria for AN or BN. Instead, these individuals would be categorized under Eating Disorder Not Otherwise Specified (EDNOS) (5). Researchers have referred to these milder forms of eating disorders as partial syndrome or
subclinical eating disorders (6,7,8). Although individuals with subclinical eating disorders may not experience severe or life-threatening health consequences, prolonged eating pathology can negatively impact quality of life, physical and psychological well being. Chronic energy restriction can lead to depression, food and weight obsession, and weight cycling (7).

**Prevalence of eating disorders and disordered eating**

In the United States, more than 5 million people are affected by eating disorders with 5% of females and 1% of men suffering from anorexia nervosa (AN), bulimia nervosa (BN), or binge eating disorder (9). Thus, the majority of cases of eating disorders occur in females. The prevalence of AN and BN among adult women has been estimated to range from 0.5% and 1-3%, respectively (6). In adolescents, estimates of AN is approximately the same, however, rates of BN span a greater range from 0-5.8% (6). The age of onset for eating disorders usually occur during adolescence for AN and late adolescence to early adulthood for BN (5).

Although the prevalence of AN and BN among adult women and adolescents may seem diminutive, the proportion of females who fit under the category of EDNOS or subclinical eating disorders reveals a much different scenario. In studies of female clinical populations, the percentage of women and adolescents with subclinical eating disorders who present at treatment facilities range from 13-47% and 35-50%, respectively (6).

In the literature, special subgroups within the population that have been identified to have an increased risk for developing eating disorders include athletes (10,11,12), college women (1,2,12), and women of some sororities (3,12). In addition to the cultural
pressures imposed on all women to achieve the perfect body shape, some female athletes must also conform to adopt weight and aesthetic standards within their sport in order to be successful (13). For female distance runners, sprinters, and swimmers, a lower body weight may be perceived as providing a competitive edge. Women participating in aesthetic sports such as gymnastics, figure skating, diving, and ballet are evaluated on athletic skill as well as appearance, both of which are directly related to body shape and size. Research involving sorority women has found that for some of these organized groups their communal living environment may promote body dissatisfaction and disordered eating (3). Although the college years can include athletic involvement as well as membership in sororities, many young women outside of these groups are also at risk for developing disordered eating. The majority of students who use college health and counseling services for eating-related concerns can be categorized under EDNOS (7).

Weight management practices such as fasting, bingeing, purging, use of laxatives, appetite suppressants, diuretics, and elimination of high-fat foods have been used by college women to manage weight. A large survey involving college women (n=643) found that only 1/3 of college women could be considered normal eaters, while 64% demonstrate subclinical eating pathology according to clinical diagnostic criteria (14). More recent estimates of the prevalence of unhealthful weight management practices such dieting and restrained eating among college students (n= 4609 and n=249) range from 30.8-33% (15,16). In a group of predominately normal weight (average BMI of 22.87 kg/m²) freshman college women (n=225), 94% chose a desired body weight that
was significantly lower (p<0.001) than their current weight, with a difference of 14.56 lb between actual and desired weight (2).

**The eating disorders continuum**

The EDNOS category under DSM-IV supports the concept of an eating disorders continuum. Along the continuum, eating behaviors range from no concern with weight and normal eating at one end to clinically diagnosed eating disorders at the other end (14,17,18). Eating behaviors can be conceptualized into 6 distinct groups along the continuum with milder or subclinical variants occupying the intermediate points. The categories include normal eaters, chronic dieters, bingers, purgers, subthreshold-level bulimia, and clinically diagnosed bulimia (14,18). In a recent study involving female students between the ages of 17-20 years (n=259), >10% of respondents indicated disordered eating which could be categorized along the mid-points of the continuum between normal eating and full blown bulimia (19). For some individuals, there is evidence to suggest that the severity of disordered eating can continue to progress and eventually develop into full syndrome eating disorders (6, 8). In view of the greater prevalence of subclinical eating disorders and the likelihood that eating pathology can worsen over time, it is important to identify the underlying causes and risk factors to help guide the development of much needed prevention programs and health services on campus.

**Major risk factors**

The etiology of eating disorders may result from one or more risk factor categories which include biological, familial, sociocultural, and psychological influences (20).
Biological factors such as being overweight and obese, pubertal weight gain, and dieting have been suggested to increase risk. As stated previously, the causal role of overweight per se has not been well supported as measures of BMI have not been a reliable predictor of eating pathology (1,2,3,21). On the other hand, dieting or dietary restraint has been linked to psychological and physiological changes due to its effects on neurochemistry (20). Chronic dietary restriction can trigger binge eating or the binge-purge cycles for those individuals with BN (9,20). Research on genetic predisposition in the etiology of eating disorders is in its infancy but may have significance in the future for early detection and secondary prevention (20).

It is well known that family dynamics, parental attitudes, behaviors, and comments are predisposing factors in the development of eating disorders (9,10,20). Negative parental comments regarding weight have consistently correlated with elementary school children's weight loss attempts and poor body esteem (22,23). In particular, parents are more likely to pass judgment on weight and appearance issues on their daughters than sons (22). Based on these findings, more girls than boys are primed at an early age to value weight and appearance as important indicators of self worth and success.

Sociocultural influences such as participation in aesthetic sports, peer pressure on weight and eating, and various forms of media have been implicated as risk factors (11,20). In a sample of elite athletes, the prevalence of subclinical and clinical eating disorders in females involved in aesthetic sports (n=52) was 42% (11). The results of this study indicated that the prevalence of food and weight preoccupation in young women has increased over the last decade due to a greater focus on obtaining a lean
physique. These subtle changes within the athletic community may have a trickle effect on cultural standards of beauty for young women. In physically active women, striving for physical fitness has no doubt enhanced their health and quality of life. However, it may have inadvertently added another facet of idealism to those who are already preoccupied with obtaining the “perfect” body. Being thin is no longer enough, but a thin and toned body has evolved as the new standard of beauty (8).

The effects of peer pressure play an important role in the development of weight concerns for girls in both elementary and middle schools. In a survey of female elementary and middle school students, peer influences on the importance of looking good and being thin related to perceived popularity with same sex and opposite sex peers. Being slim and attractive were factors which significantly affected body image perception for both age groups (24). In middle school girls, being teased about weight and having low self confidence were also crucial in predicting increased weight concerns.

With regards to media influences, girls in both elementary and middle schools look upon girls and women on television and magazines as beauty standards (24). A study involving normal weight older adolescents (mean age of 15.5 years) found no significance between total television viewing time and weight concerns. However, it was the type of programs watched that influenced their perception of body image. Time spent watching soap operas and movies correlated positively with increasing body dissatisfaction rating while time spent watching music videos correlated positively with the Drive for Thinness subscale of the Eating Disorder Inventory (EDI) (25). It would seem logical that girls and young women with distorted body image and poor sense of
self would be more likely to engage in self criticism and be willing to embrace the sociocultural ideals defined by the mass media.

Psychological characteristics such as perception of being overweight, body dissatisfaction, low self esteem, and unstable self-perception have been shown to predict eating problems in adolescent girls (21). Therefore, the focus of college based prevention and intervention programs should critically evaluate these psychological predictors of eating pathology in college women in order to develop more relevant and effective interventions.

**Psychological and behavioral predictors of eating pathology in college women**

For most young women, the academic and social pressures of college life coupled with new found independence of being away from home can be an exciting but stressful transition. The highly competitive academic environment may also foster competition in other areas such as social acceptance, athletic performance, and obtaining the ideal thin body. The effects of high perceived stress and maladaptive coping in the presence of weight dissatisfaction and low self esteem have been shown to be triggers in the etiology of eating problems (26).

Relative to high school, college women are more likely to perceive themselves as overweight and exhibit greater body dissatisfaction (27). In a prospective study of college freshmen, the percentage of students who began dieting or binge eating for the first time were 25% (n=402 females, 546 males) and 15% (n=402 females), respectively (17). Those who had previously engaged in disordered eating also reported an increase in frequency during freshman year.
Interestingly, an association between levels of cigarette and alcohol use and disordered eating attitudes exists in female college students. Moderate smokers (10-20 cigarettes per day) and light smokers (≤9 cigarettes per day) had significantly higher scores on the Body Dissatisfaction and Drive for Thinness subscales of the EDI than non-smokers (28). At the same time, heavy drinkers (≥45 drinks per month) experienced significantly higher levels of body dissatisfaction than light drinkers (≤17 drinks per month), and nondrinkers (28). It seems likely that cigarette and alcohol use may be coping mechanisms to help offset the strong negative emotions associated with a poor body image. In this population, smoking regularly and alcohol use beyond social drinking may serve as signals for underlying body image disturbances.

There is compelling evidence to indicate that high self esteem may play a protective role in reducing the risk of disordered eating in women, especially the development of bulimic symptoms (21,29). A positive correlation between low self esteem and high Eating Attitudes Test (EAT) scores demonstrates that low perceived self worth increases one's vulnerability to weight and shape concerns, and eating restraint (21,30). Self esteem has also been found to have a much stronger negative correlation with body dissatisfaction than actual body weight (21).

A relationship between basic need satisfaction and emotional eating has been postulated in the literature. According to Maslow's hierarchy of needs, once basic needs such as the need for oxygen and water are satisfied, one strives to meet higher level needs such as security, love, and self esteem (31). Unfulfilled needs create an imbalance which acts as a stressor and leads to emotional eating as a substitute to fill the void. Individuals with a lower level of basic need satisfaction were more likely to
engage in emotional eating (31). Binge eating, overeating, and bulimic tendencies have been shown to be associated with emotions. In particular, binge eating appears to dull the intensity of negative affective states such as anger, depression, and anxiety (32). Thus, promoting improvements in self esteem naturally becomes a vital aspect of prevention at the college level.

Self concept clarity reflects the stability and consistency of self perception relating to personal attributes such as opinions, beliefs, sense of self, and personality traits (33). Although unstable self concept does not seem to be a strong risk factor for eating pathology by itself (21), it does correlate positively with self esteem (21,33), and has temporal stability (33). Women with unstable or negative self concept would be more vulnerable to accept unrealistic cultural images as standards for self evaluation. Having a fragile sense of self may be the stimulus for a heightened search for meaningful identity and body image becomes the focal point for gaining body esteem and self worth (34).

Effects of disordered eating on college women

Although the effects of subclinical eating disorders may not be immediately life threatening or cause severe health consequences in the short term, body image ruminations, undue focus on body weight and shape, and food preoccupation can be taxing on daily functioning. Food and weight preoccupation can exhaust one's ability to concentrate on other aspects of life which can ultimately hinder academic performance, the primary focus of college life (3). Chronic disordered eating can lead to more severe health consequences such as weight cycling, depression, worsening of eating pathology, and the development of full blown clinical eating disorders (8). Prevention
programs aimed at reducing body dissatisfaction, promoting self acceptance, and creating a positive self concept may be effective in limiting the development of eating pathologies.

**Considerations in prevention and education**

Surprisingly, few intervention programs exist at the college level to prevent disordered eating. This may stem from the notion that disordered eating behaviors are well entrenched during early adolescence to such an extent that college programming should mainly focus on treatment aspects (27). Also, since subclinical eating disorders are often well hidden and undetectable within the larger student population, it may become overshadowed by other health issues thus shifting the focus of campus health and counseling services.

Prevention programs at the college level should concentrate on reducing body dissatisfaction to stop the course of worsening eating pathology (1). It has been suggested that prevention programs target students who engage in normal eating and exercise behaviors but may be vulnerable to eating problems due to participation or membership in certain groups such as athletics and sororities (12). Programs should aim to increase the awareness, understanding, and shift attitudes of these susceptible young women while promoting healthier behaviors. For those individuals identified with preexisting body image issues or have some degree of disordered eating, program intervention should contain components involving self reflection and problem solving techniques (12).

Since mass media has become an influential aspect of the 21st century, young women should be taught to question the messages that bombard their daily lives. Self
acceptance should be a key program component along with skills to critically evaluate sociocultural definitions of beauty as achieving these idealized figures is generally out of reach for the average woman (2). As self esteem plays a key role in reducing the likelihood of disordered eating, promoting body acceptance, recognizing individual differences in weight and shape, and highlighting other qualities to define self worth are vital concepts.

A recent study involving female chronic dieters found that by emphasizing body and self acceptance and promoting the concept of living life to the fullest regardless of size and weight that participants had better health outcomes than those following a traditional diet approach (35). Two years post intervention, the “health at every size” group showed greater improvements in blood pressure, blood lipid levels, daily physical activity, restraint eating, and self esteem. In comparison, the traditional diet group experienced a much higher rate of attrition, and initial weight loss was obliterated by post intervention weight cycling. More importantly, participants showed significant worsening of self esteem quite possibly as a result of another diet failure.

To avoid inadvertently teaching young women dieting and compensatory weight loss techniques, some prevention studies have found it best to leave out discussions regarding the symptoms and weight management practices of individuals with eating disorders (20). However, teaching participants to relearn hunger and satiety cues may be valuable for those who have lost touch with their internal mechanisms of food intake regulation (18). Activities such as maintaining a food diary to increase awareness of internal cues, information on defining a healthy weight range, and strategies for effective and realistic weight management may be practical tools for promoting participant
success. Although much of the outcome on prevention studies has been effective in increasing participant knowledge, changes in behavior was not always observed (20).

A college curriculum which examined body image from a non-personal approach but in the context of sociocultural, biological, historical, developmental, and psychological influences found significant improvements in participants' body image and eating attitudes (36). After the 10 week intervention, scores for the BSQ\(^1\), EDI\(^2\), and EDE-Q\(^3\) improved significantly for the 24 female undergraduate students enrolled in the course. However, scores on self esteem\(^4\) and BMI did not differ post-intervention indicating that a shift in body image may not require an improvement in self esteem or weight loss.

The results presented by this study along with suggestions from the literature provide valuable guidance for future curriculum development targeting this particularly vulnerable group.

**Research applications**

Previously collected data on UWSP female athletes suggest that a large proportion of UWSP female students may have some degree of body dissatisfaction, food and weight preoccupation, and disordered eating. Data from the literature review on prevention and intervention strategies suggests that programs at the college level include components to raise awareness, improve knowledge, and provide tools to enhance self reflection and problem solving ability.

The initial step in this process should explore the prevalence and severity of food and weight issues and whether competitive sports participation affects perception and

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1. Body Shape Questionnaire
2. Eating Disorder Inventory, Drive for Thinness and Bulimia subscales
3. Eating Disorder Examination Questionnaire, Weight and Shape subscales
4. Rosenberg Self-Esteem Scale
behavior. Perceived pressures from sociocultural factors such as parents, boyfriend or significant other, peers, society, and media will indicate whether college women regard these factors with as much importance as their younger counterparts. By measuring the psychological and behavioral predictors of disordered eating such as self-esteem, self concept clarity, eating attitudes, body dissatisfaction, and emotional eating, it may be possible to further elucidate the relationships between these risk factors and provide a basis for comparison with the literature.

Program components should include media literacy, redefining beauty, recognizing individual differences, and stress management. For young women, these will help to increase their understanding and knowledge of media and cultural influences and serve as tools to counteract the messages and situations that bombard their daily lives. A non-dieting approach along with concepts that emphasize legalizing food, relearning hunger/satiety cues, and mindful eating experiences may reduce diet restraint and dieting behavior. Self reflection by journaling and goal setting can enhance problem solving skills and promote personal change. A more appropriate approach to body acceptance may be in the context of wellness and vitality since it does not focus on weight issues and can encompass important health promoting concepts such as healthy eating, regular physical activity, and the adoption of a positive, optimistic outlook.
Chapter 3: Methodology and Procedure

Research goals and objectives

The study has two main goals. The first goal is to identify the prevalence and extent of body dissatisfaction, weight management practices, and negative perceptions regarding self concept and self esteem among female undergraduate students at the University of Wisconsin-Stevens Point (UWSP). The second goal is to develop and evaluate the effectiveness of an eight week intervention program designed to modify early maladaptive cognitions and emotions related to the development of food and weight preoccupation.

To allow for more detailed analyses, the two main goals have been further divided into nine detailed research objectives:

1. To identify the prevalence and extent of body dissatisfaction and negative body image among a convenience sample of female undergraduate students at UWSP.

2. To identify the prevalence, severity, and nature of food preoccupation, emotional eating, and dieting behavior among a convenience sample of female undergraduates at UWSP.

3. To determine if positive self esteem and self concept are protective factors for body dissatisfaction.

4. To investigate if participation or involvement in a competitive sport affects one’s attitudes towards body image, dieting behavior, and body dissatisfaction.
5. To investigate if smoking and/or alcohol consumption are correlated with a negative body image.

6. To compare and/or confirm if body mass index (BMI) correlates with body image as per existing literature.

7. To determine if an increase in food and nutrition knowledge correlate with disordered eating behaviors (i.e., Eating Attitudes Test (EAT-26) scores).

8. To determine the effect of an eight week intervention program on short term changes in eating attitudes, behaviors, and perceptions.

9. To assess if participants exhibit any change(s) in behaviors and attitudes one and two years post intervention (assessed by a follow up survey tool one and two years post intervention).

**Research design & data collection procedures**

The course, “Women’s Wellness & Vitality”, was offered as a novel section of Health Promotion/Wellness 107 (HP/W 107), special topics in the seven dimensions of wellness during first semester of Fall 2005. This course designation offers several sections on different topics each semester. “Women’s Wellness & Vitality”, HP/W 107, section 5, was opened to all students and satisfied the Wellness/Health Enhancement (WLHE) General Degree Requirement (GDR). Enrollment was not limited to a particular ethnic group or gender. However, it was clear from the course title and description (Appendix A) that the focus was on women’s health and well-being. There was no health or academic prerequisites to enroll in the course.

The eight week course was taught by Deborah Tang. Dr. Jane Jones and Dr. Annie Wetter attended some of the sessions as observers and taught components of the
curriculum which were related to their areas of expertise. During the first and last session of the course, students were asked to complete a series of questionnaires to assess their eating attitudes, body dissatisfaction, and feelings towards self concept and self esteem. The purpose of each questionnaire was explained to students during the first class.

The objectives of the study were not revealed to students. Since responses to the study questionnaires were based solely on self-reported information, having prior knowledge that change was being measured for the purpose of research may influence a respondent's answer. Students may feel more compelled to select responses which are more socially acceptable thus altering study outcome.

Students were given the choice to participate in the course without being in the study. It was explained to them that their questionnaires would be completed for course purposes only and not used as data for the study. If a student chose not to have her data included in the study, she would indicate this on the informed consent (Appendix C) by writing “exclude from study” on the signature line, and her questionnaires would be excluded. By having everyone return the questionnaires, it served to protect the identities of those who chose to participate in the study.

It is possible that some students may experience some degree of emotional distress as a result of revealing information about their feelings towards body dissatisfaction or eating problem as they complete the questionnaires. To minimize this risk, students were informed of their right to withdraw from the study at any time and of their right to refuse to provide any information they felt uncomfortable providing without fear of negative repercussion. Contact information for UWSP Health Services and the
Counseling Center were also provided on the informed consent for those wishing to seek advice and support. It was explained to students that anyone who did not want to participate in the study or wished to dropout from the study at any point during the course can do so without withdrawing from the course. The confidential nature of the data collection, management and reporting procedures used in the study were discussed with students. Class discussions did not involve results of the questionnaires.

Subject recruitment

A flyer with the course title and brief description of course content was created and copies were made available to academic advisors during freshmen orientation at the end of June. The course title and description were also available via the electronic timetable by August. To enhance enrollment, the same flyer was posted on Student Message of the Day during the first week of classes. Due to low enrollment one week prior to the start of the course, announcements were made by the professor of a large general wellness course to further increase awareness.

The research protocol, design, and subject recruitment process were submitted and approved by the UWSP Institutional Review Board (IRB) in April 2005.

Course description and objectives

The course, "Women's Wellness & Vitality", HP/W 107, section 5, explored external factors such as family history, social, and cultural influences and how they shaped a woman's body image. Internal factors which affect a woman's self perception and lifestyle habits were presented. The course also examined the concept of shifting
beyond societal emphasis on outer beauty and redirecting the focus on wellness and vitality in the pursuit of health and well-being. The text book used for the course was "Reshaping Your Body Rethinking Your Mind. A Practical Guide to Enhancing Body Image & Improving Self Esteem" written by Lauve Metcalfe.

The duration of the course was eight weeks, offered on Monday evenings from September 12 to October 31, at 6:00-8:30 pm. Students who completed the course satisfactorily earned two credits towards their GDR for WL/HE.

The six course objectives were explained to students during the first class and were also listed in the course syllabus as follows:

1. To recognize the internal and external factors which influence body image and body dissatisfaction.

2. To acquire the skills to critically evaluate media messages and images.

3. To provide the experiences and tools which promote body acceptance, self worth, and positive self talk.

4. To provide eating experiences which emphasize the pleasures of eating and the taste of "real" food rather than calorie counting and fear of weight gain.

5. To recognize that beauty comes in all different shapes and sizes and to promote the acceptance of individual differences.

6. To recognize the importance of wellness and vitality in the context of healthy eating, regular physical activity, and a positive outlook.
Course curriculum outline for "Women's wellness & vitality"

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Description and educational format</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Introduction • Influencing factors • Journaling</td>
<td>• Course objectives and syllabus (lecture) • Factors affecting food choices and body weight (group activity, discussion) • The &quot;how to&quot; and benefits of journaling (lecture)</td>
</tr>
<tr>
<td>2</td>
<td>The ideal woman • Body image slogans &amp; messages • Social &amp; cultural influences • Media literacy</td>
<td>• Characteristics of the ideal woman in various stages of life (individual exercise, group discussion) • Slogans, commercial jingles and phrases of speech that influence our perceptions (small &amp; large group discussions) • Facts about body image and the media, portrayal of women on television and motion pictures (lecture, group discussion) • Key questions to ask in analyzing media (lecture)</td>
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<tr>
<td>3</td>
<td>Advertising analysis • Historical perspectives of the perfect body • Honor your personal story • Story of a breast cancer survivor</td>
<td>• Selecting magazine ads which negatively portray women (small group exercise, presentation to class) • Messages about the ideal body type are dictated by political, economical, and social climate of the period (lecture) • Similar experiences and issues shared by other women (small &amp; large group discussions) • Gaining a new perspective on appreciating our own body (story reading, group discussion)</td>
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<tr>
<td>4</td>
<td>Examining our histories • Body size acceptance and realistic weight • Legalizing food • Food house fantasy</td>
<td>• Influence of family and peers (group discussions) • Elements that contribute to a healthy body image; using BMI to define a goal weight range (lecture &amp; group discussion) • Keeping food in neutral status, relearning physical hunger (lecture) • Guided imagery to embrace and legalize favorite foods</td>
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<tr>
<td>5</td>
<td>French Women Don't Get Fat • Sensual nature of eating • Mindful eating experience • Self hypnosis and relaxation</td>
<td>• Taking pleasure in eating foods that we enjoy (group discussion) • Eating with full awareness, involving all senses (lecture) • Attuned eating exercise (group exercise) • Using imagery to practice relaxation (group exercise)</td>
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<tr>
<td>6</td>
<td>Defining wellness and illness • The 7 Dimensions of Wellness • Ideal patterns • Why diets fail? • Behavior patterns</td>
<td>• What it means to different people (small group exercise) • Wellness is influenced by social, physical, emotional, career, intellectual, environmental, and spiritual factors (lecture) • Normal and abnormal eating and exercise patterns (small &amp; large group discussions) • Weight loss is regulated by factors relating to genetics, evolution, and adaptation (lecture) • Controllable behavior patterns that affect weight and health (lecture &amp; discussion)</td>
</tr>
<tr>
<td>7</td>
<td>Exercise • Sports nutrition • What should I eat? • Label reading</td>
<td>• Effects and benefits of exercise (lecture &amp; discussion) • Food and fluids for exercise (lecture &amp; discussion) • Daily food choices for a healthy diet (lecture) • What to look for on a food label (group exercise)</td>
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<tr>
<td>8</td>
<td>Reading food labels • Nutrition &amp; women's health • Goal setting</td>
<td>• Practice reviewing food labels (small group exercise) • Nutrition issues that concern women (lecture) • Setting personal exercise goals (individual exercise)</td>
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The course did not include information on weight loss, signs and symptoms of eating disorders, or weight management techniques employed by individuals with eating disorders. As mentioned in the literature review, research has shown that providing information on weight control techniques and disordered eating pathology may inadvertently provide cues for women who are dissatisfied with their body and shape to worsen their own eating behavior.

Instrumentation

During the first and last session of the course, subjects were asked to complete baseline and post-intervention questionnaires which included demographic information, the Eating Attitudes Test, the Emotional Eating Scale, the Body Shape Questionnaire, the Self-Concept Clarity Scale, and the Rosenberg's Self Esteem Scale (Appendix B).

The questionnaire on demographic information collected data regarding age, ethnicity, and year in college. It also included sections on weight history, nutrition history, and sports participation. The weight history section inquired about participants' current height, weight, length of time at current weight, weight fluctuations, perceived ideal body weight, pressures to control weight, and attempts to gain, maintain, or lose weight. Number of meals and snacks eaten per day, meal skipping patterns, alcohol and cigarettes usage along with quantity and frequency of use were assessed in the nutrition history section of the questionnaire. Participants were also asked about their involvement in competitive sports such as affiliations with National Collegiate Athletic Association (NCAA) or club sponsored teams and whether or not they felt the need to control their weight for their sport or diet during the off-season.
The Eating Attitudes Test (EAT-26) is a widely used and accepted standard for measuring the symptoms and behavior characteristics of disordered eating (3,37,38). It consists of 26 questions which relate to an individual's attitudes and behaviors toward weight, food, exercise, and dieting using a six point Likert scale (1=always, 2=very often, 3=often, 4=sometimes, 5=rarely, and 6=never) (38). Total score on the EAT-26 can range from zero, indicating no risk, up to 78, which translates to the highest risk (3). Although the EAT-26 cannot be used as a stand alone test to diagnose eating disorders, it has been accepted that individuals scoring ≥ 20 may be at risk for having an eating disorder and a clinical referral is suggested for further assessment and diagnosis.

Binge eating has been shown to relate to negative affective states such as anger, depression, and anxiety (32). The Emotional Eating Scale (EES) measures the likelihood of eating associated with certain emotional states. Based on an emotional description, respondents select their urge to eat on a 5 point Likert scale (1=no desire to eat, 2=a small desire to eat, 3=a moderate desire to eat, 4=a strong urge to eat, and 5=an overwhelming urge to eat) (39). In particular, the EES is designed to measure emotional eating as it relates to three different affective states, anger/frustration, anxiety, and depression. In two clinical populations of female binge eaters (n=47 and n=51), means scores for the subscales ranged from 23.96-26.85 (SD=7.94-8.71) for Anger/Frustration, 15.19– 6.49 (SD=6.51-7.31) for Anxiety, and 12.0-12.96 (SD=4.0 and 3.62) for Depression (39). In a sample of non-eating disordered women (n=51), EES scores were 11.2 (SD=8.78), 6.42 (SD=5.86), and 8.10 (SD=4.71) respectively for the Anger/Frustration, Anxiety, and Depression subscales (32).
The Body Shape Questionnaire (BSQ) is a self-reported measure which consists of 34 questions regarding one's feelings towards appearance, shape, and the general perception of "feeling fat" (39). Questions regarding perceived shape, appearance, eating, and exercise practices are rated on a 6 point Likert scale (1=never, 2=rarely, 3=sometimes, 4=often, 5=very often, and 6=always). Validation of the BSQ within clinical populations have identified individuals with BN (n=38) having mean scores of 136.9 (SD 22.5), those with probable cases of BN (n=10) with mean scores of 129.3 (SD 17), and non-clinical cases (n=316) with mean scores of 71.9 (SD 23.6) (40). Other researchers have used BSQ scores ≥90 to identify individuals with subclinical eating disorders (8) and scores >120 for those considered at risk for eating disorders (36).

The Self Concept Clarity Scale (SCC) is composed of 12 statements regarding personal attributes and beliefs. Individuals rate their level of agreement on a 5 point Likert scale (1=strongly agree, 2=agree, 3=neutral, 4=disagree, and 5=strongly disagree). The scale provides an indication of whether an individual can clearly and confidently define his/her self concept (33). The SCC scale has been shown to correlate positively with measures of self esteem, such that individuals with higher self concept clarity would also demonstrate higher levels of self esteem. Test-retest reliability within college populations has also shown that test scores on the SCC scale are stable over short periods of time. Interestingly, there is a slight gender difference in test scores, with women exhibiting lower levels of self concept clarity than their male counterparts. Mean scores for the SCC scale administered to three groups of Canadian college students (n=112, n=90, and n=81) ranged from 38.02 - 41.72 (33).
Self esteem scores for individuals with bulimic tendencies have been shown to be lower than those of binge eaters and normal eaters (14). As mentioned previously, there is a positive correlation between self esteem measures and scores on the SCC scale. By contrast, high EAT-26 scores tend to correlate negatively with measures of self esteem such that individuals at higher risk of having an eating disorder tend to have lower global self esteem as measured by the Rosenberg Self Esteem Scale (RSE) (21,30). The RSE consists of ten questions which assess feelings and perceptions regarding one's self worth, self respect, usefulness, and self satisfaction. Respondents are asked to select from a 4 point Likert scale (1=strongly agree, 2=agree, 3=disagree, and 4=strongly disagree), depending on their level of agreement with a statement. Questions that are negatively worded are reverse scored such that higher scores would indicate higher levels of global self esteem. Total score on the RSE can range from 10-40. Individuals scoring above the midpoint of the scale (>20) are considered to have positive self evaluation (41). In a meta-analytic review comparing self esteem scores of predominately college women, the mean score based on the RSE from 47 studies was 31.85 (42).

**Nutrition knowledge**

A nutrition quiz made up of 20 multiple choice and true or false questions were administered to students during week 6 of the course to assess general nutrition knowledge. Students were not informed of the quiz until just prior to the time of test administration. All questions pertained to basic knowledge of the new Food Guide Pyramid and the Nutrition Facts Label. The scores of the nutrition quiz were used to compare with baseline EAT-26 and BSQ scores to determine if an increase in food and
nutrition knowledge correlated with disordered eating behaviors and body dissatisfaction.
Chapter 4: Results

Participant demographics

A total of 21 undergraduate female students attended the first session of the course. After reviewing the course syllabus, one student decided to drop out citing she was already familiar with the topic. The nature of the study and survey instruments were explained in detail verbally to students at the beginning of the first session and written in the informed consent form. All 20 students agreed to participate in the research study. One student eventually dropped the course. Thus, the data and analyses reported include the 19 students who completed the entire course.

The average age of the participants was 19.7 years (SD 1.6; range=18-24). The majority of the participants were Caucasian (95%) with only one participant reporting "other" as her ethnicity. Even though the course was designated a first year level course, participants' year in college varied from freshmen to senior (Table 1). Most students were enrolled in a science related major (e.g., biology, chemistry, clinical laboratory science, and health promotion), a small number were business majors, while several students were undeclared.

Only 5 (26%) participants were involved in organized sports such as a National Collegiate Athletic Association (NCAA) Division 3 sponsored sport, club sponsored, or intramural sport.
<table>
<thead>
<tr>
<th>Race</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>18</td>
<td>95</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year in school</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshmen</td>
<td>8</td>
<td>42</td>
</tr>
<tr>
<td>Sophomore</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>Junior</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Senior</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sports participation</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes*</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>NCAA sponsored sport</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Club sponsored team</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Intramural team</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Controls weight for sport</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Usual number of meals/day</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2</td>
<td>10</td>
<td>53</td>
</tr>
<tr>
<td>3 to 4</td>
<td>9</td>
<td>47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Usual number of snacks/day</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 2</td>
<td>15</td>
<td>79</td>
</tr>
<tr>
<td>3 to 4</td>
<td>4</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meal Skipping</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Rarely</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Sometimes</td>
<td>11</td>
<td>58</td>
</tr>
<tr>
<td>Often</td>
<td>3</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Alcohol Use</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>11</td>
<td>58</td>
</tr>
<tr>
<td>Binge drinking**</td>
<td>9</td>
<td>47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency of binge drinking</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twice a month</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>7</td>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Smoking</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4</td>
<td>21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of cigarettes</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 or less per day</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>10 to 20 per day</td>
<td>3</td>
<td>16</td>
</tr>
</tbody>
</table>

Note: *Two students reported sports participation on both a club sponsored and an intramural team. **Binge drinking was defined as having 5 or more drinks in one sitting.
Lifestyle and weight related variables

Participants were almost evenly divided with respect to the number of meals eaten daily, 10 (53%) reported eating 1 to 2 meals and 9 (47%) reported eating 3 to 4 meals each day. The majority of participants (15 or 79%) usually consumed 1 to 2 snacks while 4 (21%) usually consumed 3 to 4 snacks daily. Meal skipping behavior was reported to occur “sometimes” and “often” by 11 (58%) and 3 (16%) of the participants, respectively.

Eleven (58%) out of the 19 participants reported drinking alcohol and 9 of these 11 reported binge drinking, defined as having 5 or more drinks in one sitting. Binge drinking twice monthly and less than once a month were reported by 2 (11%) and 7 (37%) of the participants, respectively. Smoking was reported by 4 (21%) of the participants, one (5%) participant smoked 9 or less cigarettes daily while 3 (16%) smoked 10 to 20 cigarettes daily.

During data analysis, it was evident that 4 participants had reported heights that differed by one inch and 2 participants reported heights that differed by two inches between pre- and post-intervention. For these participants, the two heights were averaged and designated as their reported height (Table 2).

The mean height was 65 ± 3 inches (165.1 ± 7.6 cm). Mean weight was 145 ± 25 lb (65.9 ± 11.4 kg). The mean desired weight reported by participants was 132 ± 18 lb (60.0 ± 8.2 kg). Based on the self-reported height and weight, mean body mass index (BMI) was 24.2 ± 4.0 kg/m² (range=18.6 - 33.5 kg/m²). The mean desired BMI calculated from participants’ reported desired weight was 21.9 ± 2.3 kg/m² (range=18.6 -27.4 kg/m²).
The distribution of participants among normal, overweight, and obese BMI categories was 12 (63%), 5 (26%), and 2 (11%), respectively (Table 3). None of the participants was underweight.

Table 2 – Self-reported Anthropometric Information (n=19)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (in)</td>
<td>65</td>
<td>3</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Current weight (lb)</td>
<td>145</td>
<td>25</td>
<td>108</td>
<td>220</td>
</tr>
<tr>
<td>Desired weight (lb)</td>
<td>132</td>
<td>18</td>
<td>108</td>
<td>180</td>
</tr>
<tr>
<td>Current BMI</td>
<td>24.2</td>
<td>4.0</td>
<td>18.6</td>
<td>33.5</td>
</tr>
<tr>
<td>Desired BMI*</td>
<td>21.9</td>
<td>2.3</td>
<td>18.6</td>
<td>27.4</td>
</tr>
</tbody>
</table>

Note: *Desired BMI calculated from participants' reported desired weight. Mean and standard deviation (SD) for height and weight were rounded off to the nearest inch and pound.

Table 3 – Weight Related Variables

<table>
<thead>
<tr>
<th>Number of participants trying to: (n=19)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lose weight</td>
<td>12</td>
<td>63</td>
</tr>
<tr>
<td>Maintain weight</td>
<td>7</td>
<td>37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of participants with BMI &lt;25 trying to: (n=12)</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lose weight</td>
<td>5</td>
<td>42</td>
</tr>
<tr>
<td>Maintain weight</td>
<td>7</td>
<td>58</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BMI category (n=19)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>0</td>
</tr>
<tr>
<td>Normal</td>
<td>12</td>
</tr>
<tr>
<td>Overweight</td>
<td>5</td>
</tr>
<tr>
<td>Obese</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived source of pressure to control weight: (n=19)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coach</td>
<td>0</td>
</tr>
<tr>
<td>Team mates</td>
<td>0</td>
</tr>
<tr>
<td>Parents</td>
<td>4</td>
</tr>
<tr>
<td>Peers</td>
<td>5</td>
</tr>
<tr>
<td>Boyfriend or significant other</td>
<td>3</td>
</tr>
<tr>
<td>Society</td>
<td>13</td>
</tr>
<tr>
<td>Media</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: aUnderweight: BMI <18.5 kg/m²; bNormal: BMI from 18.5-24.9 kg/m²; cOverweight: BMI from 25.0 – 29.9 kg/m²; dObese: BMI > 30.0 kg/m².
There were 12 (63%) participants who were attempting to lose weight and 7 (37%) who wished to maintain their current weight. When participants were stratified into BMI categories, 5 (42%) of the participants with a normal BMI (<25 kg/m²) wanted to lose weight while 7 (58%) from the same BMI category wanted to maintain their weight.

When participants were asked to select from a pre-determined list of "perceived sources of weight control pressure", society was cited most often (13 times) as a source of pressure, followed by media (9 times), peers (5 times), parents (4 times), and boyfriend or significant other (3 times).

**Statistical analysis**

Survey data were not normally distributed. Thus, the relationship between outcome measures were assessed by Spearman Correlation and differences in variables from pre- to post-intervention were assessed by the Wilcoxon Signed Ranks Test.

The relationship between perceived weight control pressures and scores for the SCC and RSE were analyzed using Independent Samples T-tests as well as the differences between pre- and post-intervention scores for participants stratified into high and low BSQ scores. Pearson Chi-Square was used to compare high and low BSQ scores with perceived weight control pressures, alcohol use, binge drinking, and smoking.

**Baseline questionnaire scores**

The mean Eating Attitudes Test (EAT-26) score was 7.7 (SD=7.3; range=0-26). Only 2 participants scored above 20, the criterion score above which risk for eating disorder is indicated. Mean scores for the EES subscales for Anger/Frustration, Anxiety, and Depression were 23.3 (SD=8.4; range=11-35), 18.9 (SD=6.3; range=10-30), and 14.2
The Body Shape Questionnaire (BSQ) had a mean score of 98.6 (SD= 39.5; range=45-175).

The Self Concept Clarity Scale (SCC) had a mean score of 34.5 (SD= 8.3; range=21-50). The mean score for the Rosenberg Self Esteem Scale (RSE) was 28.5 (SD= 4.6; range=18-36).

**Baseline and post-intervention differences in questionnaire scores**

Although the mean scores of all questionnaires decreased slightly at post-intervention compared to baseline, the changes were not statistically significant (Table 4).

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Baseline mean (SD)</th>
<th>Post-intervention mean (SD)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAT-26</td>
<td>7.7 (7.3)</td>
<td>7.5 (7.2)</td>
<td>0.847</td>
</tr>
<tr>
<td>EES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger/Frustration subscale</td>
<td>23.3 (8.4)</td>
<td>22.2 (8.0)</td>
<td>0.300</td>
</tr>
<tr>
<td>Anxiety subscale</td>
<td>18.9 (6.3)</td>
<td>18.1 (6.6)</td>
<td>0.122</td>
</tr>
<tr>
<td>Depression subscale</td>
<td>14.2 (4.8)</td>
<td>13.7 (5.3)</td>
<td>0.250</td>
</tr>
<tr>
<td>BSQ</td>
<td>98.6 (39.5)</td>
<td>97.3 (32.4)</td>
<td>0.965</td>
</tr>
<tr>
<td>SCC</td>
<td>34.5 (8.3)</td>
<td>34.2 (8.2)</td>
<td>0.849</td>
</tr>
<tr>
<td>RSE</td>
<td>28.5 (4.6)</td>
<td>27.9 (3.9)</td>
<td>0.621</td>
</tr>
</tbody>
</table>

Note: *EAT-26=* Eating Attitudes Test; *EES=* Emotional Eating Scale; *BSQ=* Body Shape Questionnaire; *SCC=* Self Concept Clarity Scale; *RSE=* Rosenberg Self Esteem Scale. Baseline and post-intervention scores were assessed by Wilcoxon Signed Ranks Test for 2 related samples.

**Relationship between BMI and questionnaire scores**

Body mass index (BMI) correlated positively with EES depression subscale scores at baseline but not at post-intervention (Table 5). By contrast, BMI correlated positively
with EES anxiety subscale scores and negatively with SCC scores at post-intervention but not at baseline.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Baseline r</th>
<th>Post-intervention r</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAT-26&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-0.004</td>
<td>-0.096</td>
</tr>
<tr>
<td>EES&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger/Frustration subscale</td>
<td>0.325</td>
<td>0.404</td>
</tr>
<tr>
<td>Anxiety subscale</td>
<td>0.353</td>
<td>0.471*</td>
</tr>
<tr>
<td>Depression subscale</td>
<td>0.567*</td>
<td>0.414</td>
</tr>
<tr>
<td>BSQ&lt;sup&gt;c&lt;/sup&gt;</td>
<td>0.288</td>
<td>0.276</td>
</tr>
<tr>
<td>SCC&lt;sup&gt;d&lt;/sup&gt;</td>
<td>-0.011</td>
<td>-0.473*</td>
</tr>
<tr>
<td>RSE&lt;sup&gt;e&lt;/sup&gt;</td>
<td>0.103</td>
<td>-0.316</td>
</tr>
</tbody>
</table>

Note: <sup>a</sup>EAT-26= Eating Attitudes Test; <sup>b</sup>EES= Emotional Eating Scale; <sup>c</sup>BSQ= Body Shape Questionnaire; <sup>d</sup>SCC= Self Concept Clarity Scale; <sup>e</sup>RSE= Rosenberg Self Esteem Scale. Spearman Correlation was used to assess the data. *p<0.05, two-tailed.

**Relationship between RSE and other questionnaire scores**

At baseline, RSE scores were negatively correlated with EAT-26 (p<0.05) and BSQ (p<0.05) scores but not at post-intervention (Table 6): RSE was strongly correlated (p<0.01) with SCC at baseline and post-intervention.

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Baseline RSE r</th>
<th>Post-intervention RSE r</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAT-26&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-0.581**</td>
<td>-0.190</td>
</tr>
<tr>
<td>EES&lt;sup&gt;c&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger/Frustration subscale</td>
<td>-0.202</td>
<td>-0.055</td>
</tr>
<tr>
<td>Anxiety subscale</td>
<td>-0.270</td>
<td>-0.032</td>
</tr>
<tr>
<td>Depression subscale</td>
<td>-0.137</td>
<td>-0.134</td>
</tr>
<tr>
<td>BSQ&lt;sup&gt;d&lt;/sup&gt;</td>
<td>-0.507*</td>
<td>-0.360</td>
</tr>
<tr>
<td>SCC&lt;sup&gt;e&lt;/sup&gt;</td>
<td>0.665**</td>
<td>0.761**</td>
</tr>
</tbody>
</table>

Note: <sup>b</sup>RSE= Rosenberg Self Esteem Scale; <sup>c</sup>EAT-26= Eating Attitudes Test; <sup>d</sup>EES= Emotional Eating Scale; <sup>d</sup>BSQ= Body Shape Questionnaire; <sup>e</sup>SCC= Self Concept Clarity Scale. Spearman Correlation was used to assess the data. *p<0.05, two-tailed. **p<0.01, two-tailed.
**Link between perceived weight control pressures and scores for the SCC and RSE**

Independent Samples T-tests were used to compare SCC and RSE among subjects who did and did not perceive weight control pressures from each source listed. At baseline, SCC was similar among those who did and did not perceive weight control pressures from parents, peers, boyfriend or significant other, and the media. However, SCC was significantly lower in those who perceived weight control pressures from society compared to those who did not (p< 0.05). RSE was similar among those who did and did not perceive weight control pressures from parents, peers, boyfriend or significant other, and society. RSE was however significantly lower in those who perceived weight control pressures from media (p< 0.05) compared to those who did not.

<table>
<thead>
<tr>
<th>Perceived source of pressure:</th>
<th>SCC</th>
<th>RSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>Mean (SD)</td>
</tr>
<tr>
<td><strong>Parents</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>34.3 (8.3)</td>
<td>28.1 (4.6)</td>
</tr>
<tr>
<td>Yes</td>
<td>35.5 (9.3)</td>
<td>29.8 (5.1)</td>
</tr>
<tr>
<td><strong>Peers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>36.2 (7.0)</td>
<td>29.0 (3.8)</td>
</tr>
<tr>
<td>Yes</td>
<td>29.8 (10.5)</td>
<td>27.0 (6.7)</td>
</tr>
<tr>
<td><strong>Boyfriend/significant other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>35.6 (7.3)</td>
<td>29.0 (4.2)</td>
</tr>
<tr>
<td>Yes</td>
<td>29.0 (13.0)</td>
<td>25.7 (6.8)</td>
</tr>
<tr>
<td><strong>Society</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>41.0 (6.8)*</td>
<td>30.5 (2.4)</td>
</tr>
<tr>
<td>Yes</td>
<td>31.5 (7.3)*</td>
<td>27.5 (5.1)</td>
</tr>
<tr>
<td><strong>Media</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>36.7 (7.7)</td>
<td>30.6 (4.1)*</td>
</tr>
<tr>
<td>Yes</td>
<td>32.1 (8.7)</td>
<td>26.1 (4.1)*</td>
</tr>
</tbody>
</table>

Note: *SCC= Self Concept Clarity Scale; RSE= Rosenberg Self Esteem Scale. Independent Samples T-Test used to assess the data. *p<0.05, two-tailed.
Differences in questionnaire scores between participants with high and low BSQ scores

When participants were stratified into low (<90) and high (≥90) BSQ scores, significant between group differences emerged (Table 8). The high BSQ group had significantly higher EAT-26 (p< 0.01), EES anger/frustration subscale (p< 0.01 at baseline, p< 0.05 at post-intervention), and EES depression subscale (p< 0.05) scores compared to the low BSQ group. SCC score was also significantly higher (p< 0.05) for the high BSQ group at baseline but not at post-intervention.

Within BSQ group analysis revealed that only one questionnaire score changed significantly with the intervention: EES anxiety subscale scores for the low BSQ group declined (p< 0.05).

Table 8 – Baseline and Post-Intervention Mean Scores for Participants with High and Low BSQa Scores

<table>
<thead>
<tr>
<th>Instrument</th>
<th>BSQ &lt; 90 (n=8)</th>
<th>BSQ ≥ 90 (n=11)</th>
<th>Tb</th>
<th>Tp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Post-</td>
<td>Baseline</td>
<td>Post-</td>
</tr>
<tr>
<td></td>
<td>mean (SD)</td>
<td>intervention</td>
<td>mean (SD)</td>
<td>mean (SD)</td>
</tr>
<tr>
<td>EAT-26b</td>
<td>2.5 (1.9)</td>
<td>2.4 (2.0)</td>
<td>11.5 (7.4)</td>
<td>11.2 (7.4)</td>
</tr>
<tr>
<td>EESCc</td>
<td></td>
<td></td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Anger/Frustration subscale</td>
<td>17.6 (7.4)</td>
<td>17.4 (6.4)</td>
<td>27.4 (6.7)</td>
<td>25.6 (7.3)</td>
</tr>
<tr>
<td>Anxiety subscale</td>
<td>17.1 (6.6)</td>
<td>15.1 (5.0)*</td>
<td>20.3 (6.0)</td>
<td>20.3 (7.0)</td>
</tr>
<tr>
<td>Depression subscale</td>
<td>11.5 (4.1)</td>
<td>10.3 (3.8)</td>
<td>16.2 (4.4)</td>
<td>16.2 (4.9)</td>
</tr>
<tr>
<td>SCCd</td>
<td>39.3 (7.4)</td>
<td>36.3 (9.0)</td>
<td>31.3 (7.4)</td>
<td>32.7 (7.7)</td>
</tr>
<tr>
<td>RSEe</td>
<td>30.1 (2.6)</td>
<td>28.4 (2.9)</td>
<td>27.3 (5.5)</td>
<td>27.6 (4.6)</td>
</tr>
</tbody>
</table>

Note: BSQ= Body Shape Questionnaire; EAT-26 = Eating Attitudes Test; EES= Emotional Eating Scale; SCC= Self Concept Clarity Scale; RSE= Rosenberg Self Esteem Scale. Wilcoxon Signed Ranks Test used to assess baseline and post-intervention data within groups. *p< 0.05, two-tailed. Independent Samples T-test used to assess baseline and post-intervention data between groups. Tb- baseline t-tests. Tp- post-intervention t-tests. +p< 0.05, two-tailed. ++p< 0.01, two-tailed.
Link between perceived weight control pressures and BSQ scores

When participants with high (≥ 90) and low (< 90) BSQ scores were cross tabulated with their perceived source of weight control pressure using Pearson Chi-Square, the high BSQ group was significantly more likely to report feeling pressure from society to control their weight compared to the low BSQ group (Table 9).

Table 9 – Comparison of High and Low BSQ Scores with Perceived Weight Control Pressures (n=19)

<table>
<thead>
<tr>
<th>Perceived source of pressure:</th>
<th>BSQ &lt; 90 (n=8)</th>
<th>BSQ ≥ 90 (n=11)</th>
<th>χ² (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>10</td>
<td>2.249</td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>1</td>
<td>0.262</td>
</tr>
<tr>
<td>Peers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>7</td>
<td>1.360</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>4</td>
<td>0.338</td>
</tr>
<tr>
<td>Boyfriend/significant other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>9</td>
<td>0.112</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>2</td>
<td>1.000</td>
</tr>
<tr>
<td>Society</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>1</td>
<td>6.115</td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>10</td>
<td>0.041</td>
</tr>
<tr>
<td>Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>6</td>
<td>0.038</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>5</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: BSQ= Body Shape Questionnaire. Results analyzed by Pearson Chi-Square.

Link between high and low BSQ scores, alcohol use, binge drinking, and smoking

Participants who reported using alcohol, binge drinking, or smoking were not more likely to have high BSQ scores than those who did not engage in these behaviors (Table 10).
Table 10 – Comparison of High and Low BSQ \(^8\) Scores with Alcohol Use, Binge drinking, and Smoking

<table>
<thead>
<tr>
<th></th>
<th>BSQ &lt; 90 (n=8)</th>
<th>BSQ ≥ 90 (n=11)</th>
<th>(\chi^2) (p value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol Use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>4</td>
<td>0.353 (0.658)</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Binge Drinking(^b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>6</td>
<td>0.038 (1.000)</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>9</td>
<td>0.130 (1.000)</td>
</tr>
<tr>
<td>Yes</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Note: \(^8\)BSQ= Body Shape Questionnaire; \(^b\)Binge Drinking defined as 5 or more drinks in one sitting. Results analyzed by Pearson Chi-Square.

Relationship between EAT-26 scores, BSQ scores, and nutrition knowledge

The mean score for the nutrition knowledge quiz was 11.5 (SD= 2.0; range=7-15) out of a total score of 20 (data were collected on only 15 students as 4 were absent that day). Nutrition knowledge was not related to EAT-26 or BSQ scores (Table 11).

Since the number of participants reported to be involved in sports was low (n=5 or 26.3\%), no analyses were performed on this outcome variable.

Table 11 – Relationship Between EAT\(^8\)-26 Scores, BSQ\(^b\) Scores and Nutrition Knowledge (n=19)

<table>
<thead>
<tr>
<th></th>
<th>EAT</th>
<th>BSQ</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>p value</td>
</tr>
<tr>
<td>Nutrition knowledge</td>
<td>-0.041</td>
<td>0.884</td>
</tr>
</tbody>
</table>

Note: \(^8\)EAT-26= Eating Attitudes Test; \(^b\)BSQ= Body Shape Questionnaire; Spearman Correlation was used to assess the data.
Chapter 5: Discussion

Participant characteristics

Although our participants were generally at low risk for eating disorders (low average EAT scores), their EES scores (Anger/Frustration, 23.3; Anxiety, 18.9; Depression, 14.2) were similar to or greater than those previously reported in two clinical populations of female binge eaters (23.96-26.86; 15.19-16.49; 12.0-12.96). Participants' mean scores were also much greater than those reported for a sample of non-eating disordered women (11.2; 6.42; 8.10). This suggests that in general, our participants had a tendency to use eating as a coping mechanism when they felt angry or frustrated, anxious, and depressed.

Participants seemed to have a relatively high level of body dissatisfaction assessed by the BSQ (mean score of 98.6). Patients with BN, individuals with probable cases of BN, and those without BN have shown mean scores of 136.9, 129.3, and 71.9, respectively (40). Some researchers have used BSQ scores ≥ 90 to identify individuals with subclinical eating disorders (8) and scores >120 for those considered at risk for eating disorders (36). There were 11 participants with BSQ scores >90 (5 scored >90; 6 scored >120). This suggests that greater than half (58%) of our participants were dissatisfied with their body or shape and may have some subclinical disordered eating pathology.

SCC scores (mean score of 34.5) were lower than those reported for three groups of Canadian college students by one study (38.02 – 41.72) (33). However, the Canadian study included students of both genders and gender differences have been detected in
test scores, with men exhibiting higher levels of self concept clarity than women. Thus, this may explain the slightly lower SCC scores exhibited by the women in our study compared to the reference sample.

RSE scores were all above the theoretical midpoint of 20 with the exception of one participant who scored below this mid-value which indicates negative self evaluation. Participants in this study had a slightly lower mean score (M=28.5) compared to those previously reported by a meta-analytic review of 47 different populations of female college students (M= 31.85) (42).

The results of the baseline questionnaire scores suggest that although the risk of having a clinical eating disorder is low for these participants, greater than half of them had body dissatisfaction and some concerns regarding their body or shape. Based on the scores on the EES scales, the prevalence of emotional eating in response to negative affective states may be high among participants. Although eating in response to negative emotions has been associated with higher levels of binge eating (39), the questionnaire relies on responders' interpretation of "urge to eat" and does not assess actual frequency or quantities of foods consumed during an emotional eating episode. At present, neither the EES scales nor the BSQ have been validated as diagnostic tools for eating disorders, however, since participants exhibited high scores on both questionnaires, this combination may be a more robust indicator of underlying subclinical eating disorders which has not yet developed to a level of severity detectable by the EAT-26.
**BMI as a predictor of eating behavior**

Body mass index (BMI) did not correlate with higher EAT-26 or BSQ scores. Thus, BMI is not a predictor of disordered eating or body dissatisfaction in female college students as per existing literature.

The relationships between BMI and EES Depression subscale at baseline (p< 0.05) and EES Anxiety subscale at post-intervention (p< 0.05) demonstrated a positive link between emotional eating and an individual's weight. It suggests that using food as a comfort measure or to reduce awareness of negative emotions can lead to a higher body weight. In the literature, emotional eating in general has been linked to bulimia rather than eating specifically in response to affective states such as anger, frustration, anxiety, and depression (32).

In a study involving non-eating disordered undergraduate women (n=51), the Anger/Frustration and Depression subscales were linked to BMI but not the Anxiety subscale (32). The mean age of the undergraduate women was 24.4 years (range=18-49) which is older than our sample (mean age=19.7 years; range=18-24). Coping mechanisms may differ as a result of age and year in college. Since our population consisted predominately of freshmen, transition into the new college environment along with academic and social pressures may create negative emotions that are highly anxiety provoking compared to the experiences of older female students or those in their junior or senior year who have adapted to these pressures.

At post-intervention, BMI correlated negatively with SCC which seems to suggest that heavier (relative to height) individuals scored lower on SCC than individuals who weighed less. However, in light of the small sample size and the absence of this
relationship at baseline, the link between BMI and SCC needs to be interpreted cautiously.

**Role of self concept clarity and self esteem**

Interestingly, participants with higher SCC scores did not perceive as much pressure to control their weight from societal pressures. Those with higher RSE scores did not perceive as much pressure to control their weight from media pressures. It appears that women with stronger sense of self and higher self esteem are more likely to challenge the cultural images and expectations put upon them whereas those with unstable or negative self concept and lower self esteem would be more vulnerable to adopt those unrealistic standards and feel more pressured to conform.

The negative correlations between self esteem and EAT-26 (p< 0.05) and BSQ (p< 0.05) scores have been suggested in the literature. Self esteem seems to have a protective role in reducing the risk of disordered eating, especially bulimia. Individuals with higher perceived self worth tend to have less weight and shape concerns, and eating restraint.

The strong positive link between self esteem and self concept clarity found by this study has also been documented by other researchers. Participants with higher RSE tend to score higher on the SCC as well.

**Effect of intervention on change in questionnaire scores**

Although post-intervention mean scores decreased slightly for all questionnaires, the differences were not statistically significant when all participants' scores were analyzed. When participants were stratified into low and high BSQ groups (<90 and ≥90), mean
scores for the low BSQ group (pre-intervention, 62.6; post-intervention, 67.6) were below the values reported for non-clinical cases. Mean scores for the high BSQ group, (pre-intervention, 124.8; post-intervention, 118.8) were slightly lower than the values reported for individuals with probable cases of BN.

Post-intervention, the low BSQ group demonstrated a significant reduction in their mean EES Anxiety subscale score (p<0.05). This suggests that participants with lower levels of body dissatisfaction reduced their tendency to eat emotionally when they felt anxious by the end of the 8 week intervention, perhaps as a result of learning more effective coping skills to deal with anxiety such as self hypnosis and relaxation, journaling or being more aware of behavior patterns which affect weight and health. However, since subscale scores for Anger/Frustration and Depression did not change, this interpretation needs to be considered with caution.

There were significant differences in mean questionnaire scores between the low and high BSQ groups for EAT-26 (p< 0.01), EES Anger/Frustration (baseline p< 0.01, post-intervention p< 0.05) and EES Depression (p< 0.05) subscales at baseline and post-intervention. For SCC, there were also significant group differences in mean scores at baseline. These findings suggest that participants with higher levels of body dissatisfaction had more disordered eating behavior, engaged in emotional eating as a coping mechanism to deal with negative affective states such as anger or frustration and depression, and had lower self concept clarity than those with lower levels of body dissatisfaction or body and shape concerns.

Participants in the high BSQ group also perceived more pressure from society to control their weight. Since this group had a significantly lower mean SCC score than
the low BSQ group, their perception may be related to an increased vulnerability to adopt societal expectations stemming from their unstable and/or negative self concept, and body dissatisfaction.

The lack of significant change in questionnaire scores between baseline and post-intervention suggests that the intervention was not effective for individuals with high levels of body dissatisfaction, emotional eating tendencies, and subclinical disordered eating pathology. The failure to observe significant changes in behavior based on responses to questionnaires may be due to low power of the sample size, and/or the need for a longer or more vigorous intervention. For participants in the low BSQ group, the expectation of attitudinal shifts or behavioral change may be unrealistic given their already low risk eating behavior, body satisfaction, positive self concept and self esteem.

**Link between body dissatisfaction, alcohol use, binge drinking and smoking**

Alcohol use, binge drinking, and smoking did not relate to body dissatisfaction in this study and may be a result of low power since only 4 participants smoked and 9 reported binge drinking.

**Relationship between disordered eating attitudes, body dissatisfaction, and nutrition knowledge**

Nutrition knowledge did not correlate with disordered eating attitudes or body dissatisfaction contrary to the notion that individuals obsessed with food and weight tend have a higher level of awareness with issues relating to food and nutrition. One consideration is that the questions on the nutrition knowledge quiz may not be
representative of the type of information that someone with disordered eating behavior may focus on such as foods which would be considered low or high in fat, and calorie content of foods.

**Study limitations**

The 8 week intervention was originally intended for freshman women with weight concerns and/or body dissatisfaction. The original flyer designed for course advertisement for distribution to academic advisors during freshmen orientation was not approved by college administration citing the phrase “Do I look fat?” was offensive and needed to be modified. The revised version of the flyer may have resulted in the recruitment of participants with lower levels of body dissatisfaction.

Even though the course was designated at the first year level, enrollment included students from all four years which may have diluted the effect of perceived stress and changes in eating behaviors associated with freshmen year and the transition to college.

The lack of a control group also limited the extent of data interpretation, particularly for participants with lower levels of body dissatisfaction. Although questionnaire scores did not change significantly between baseline and post-intervention, subtle changes in attitudes and behaviors may become more detectable if data from a control group was available for comparison. Since the majority of participants in this study were Caucasian female students, results from this study can only be generalized for this ethnic group.

Perhaps the greatest study limitation was the small sample size. Once participants were stratified into groups according to their level of body dissatisfaction, the power was
reduced even further. One of the challenges for a new course offering is eliciting adequate interest in students to enroll, particularly when the course is elective in nature and targets new students who have just arrived on campus.

**Student course evaluations**

Course evaluations completed by students during weeks 4 and 8 provided feedback regarding class content and teaching style (Appendix D). In general, students found the small class size, class discussions, interactions with classmates, and the hands on nature of group activities most helpful. Some of the activities students enjoyed included relaxation techniques, attuned eating, exercise, and nutrition.

Journaling and optional assignments received mixed reviews. While some students found journaling to be a helpful and creative exercise for self reflection, others found it difficult to generate their own topics and would have preferred to be given specific issues to write about each week. Some students liked the choices for the optional assignments whereas others would have preferred to have an even greater selection to choose from.

On the other hand, some students felt there was not enough class discussion since they did not feel comfortable expressing their feelings, personal goals, and setbacks. There was also one comment regarding the need for more real life examples to help students relate to some of the issues.

These comments seem to suggest that needs vary from students according to their learning style, comfort level with open discussions, and personal needs. Program designs which address these issues may result in more positive outcomes.
Research Implications

For the college population, there is an urgent need for validated assessment tools to identify subclinical eating disorders or pre-disordered eating behaviors. The current study identified a group of young women with possible subclinical eating pathology based on the combination of high scores on both the EES scales and the BSQ. The severity of their disordered eating behaviors may be at the low end of the eating disorders continuum and thus undetectable by currently accepted assessment tools such as the Eating Disorders Inventory (EDI) or EAT-26.

The EES Anger/Frustration and Depression subscales have been associated with EDI Ineffectiveness while EES Anxiety subscale has been significantly correlated with EDI Impulse Regulation. All together, the three scales have shown reliable predictability for EDI Bulimia, Ineffectiveness, and interpersonal Distrust (32). The reliance on food to reduce awareness of negative affective states may be an early maladaptive coping strategy related to eating disorder risk.

The BSQ was developed from open-ended interviews with several groups of women with distinctively different characteristics such as dieters, exercisers, college students, and clinical patients with AN and BN. These women were asked to describe their feelings which related to the phenomenon of “feeling fat”. The questionnaire has demonstrated significant correlation with EAT-26 and the Body Dissatisfaction subscale of the EDI (40).

Used in combination, the EES scales and the BSQ may offer more insight into the psychopathology of individuals with early subclinical eating behaviors and attitudes. The ultimate goal of early detection is to stop and reverse the downward spiral of
distorted behaviors and attitudes which can eventually lead to worsening eating pathology and full blown eating disorders. The ability for early identification and intervention may be a more cost effective approach which would also result in much less trauma to the physical and psychological health of those affected.

A review of body image and eating disorders prevention programs found limited post-intervention improvements in participant knowledge, attitudes, and behaviors and no long-term effects except for knowledge in 11 out of 20 prevention studies (43). There is still little known about effective components for prevention, however, the common theme amongst effective programs is to encourage students to apply critical thinking skills and analysis regarding human development and cultural ideals. Also, interventions which help motivate students to elicit environmental changes which relate to body image and risks for disordered eating may result in a greater impact.

The use of a computer-assisted psychoeducational program (CAPP) for college women may warrant further investigation. “Student Bodies” is an 8 week program which combines multimedia psychoeducation on eating disorders, nutrition, exercise, and historical and cultural perspectives on body image. The intervention includes 3 in class sessions along with computer-based interactions between participants. Improvements in attitudes and behaviors relating to weight, shape and eating have been found for college women as well as female students in a private high school (43).

Based on the student evaluations from our study, the use of CAPP may be adapted for the UWSP Desire 2 Learn (D2L) electronic learning system. The use of D2L can offer pre-screening to assess risk and offer learning paths which can be customized to individuals’ learning and personal needs. Participants who feel uncomfortable in face-
to-face discussions may be more at ease since on-line exchanges offer a layer of protection. This type of program design would have the capacity to accommodate more students and thus be more cost effective.

A 10 year longitudinal study with college men and women which included a follow up assessment 4-6 years post graduation found that as most women matured into adulthood, they became more satisfied with their weight, engaged in less dieting behavior, and reported fewer disordered eating pathology (44). This finding suggests that for women, the patterns of food and weight preoccupation and maladaptive coping may be a temporary phase in their young lives which eventually dissipate with maturation into adulthood.

For men, quite a different scenario emerged 10 years after the initial assessment. On average, the men in the study had gained 10 lbs and reported feeling more dissatisfied with their body weight along with an increased desire to lose weight and engage in dieting behavior.

Another study which compared the prevalence of clinical and subclinical eating behaviors in collegiate athletes with their non-athletic counterparts found that both male students and male athletes may be at risk for binge eating disorders (45). Although female students and female athletes have been the main target populations for most interventions, the results of these two studies indicate that prevention programs should also consider the needs of men.
Chapter 6: Conclusion

The high prevalence of subclinical eating disorders is often well hidden within the college population. The complex nature of disordered eating behaviors stems from the multiple etiologies of the condition. Risk factors which have been identified have biological, familial, sociocultural, and psychological origins. Although susceptible individuals often display symptoms which relate to food and weight preoccupation, the disorder actually has little to do with food but relate more to psychological disturbances such as body dissatisfaction, negative self concept, low self esteem, and poor coping skills.

In the present study, there was a high prevalence of body dissatisfaction among undergraduate female students enrolled in a general wellness course for women. Although their risk of having a clinical eating disorder was low, they did have a tendency to use food as a mechanism to cope with negative emotions. Women with high levels of self esteem and self concept clarity had significantly lower levels of disordered eating behaviors and body dissatisfaction. These women were also less likely to feel pressured to conform to societal or media ideals of beauty.

The challenges for health professionals and educators in the college setting include uncovering the screening tools which can reliably identify individuals at risk and implementing effective programs which stop or reverse the progression of disordered eating behaviors in its infancy. In the literature, successful programs encourage students to develop critical thinking skills which challenge cultural ideals and norms. Environmental changes within the college campus which promote healthy body image
and reduce disordered eating behaviors may become an important aspect of prevention.
References


Appendix A
Introducing a new course...

Women’s Wellness & Vitality HP/W 107

How do family history, social, and cultural influences shape a woman’s body image? Explore the internal and external factors which affect a woman’s self perception and lifestyle habits.

What can a woman of the 21st century do to shift beyond societal emphasis on outer beauty and focus on wellness and vitality in the pursuit of health and well-being?

This is an 8 week, 2 credits course which meets GDR WL/HE.
Location: UWSP, College of Professional Studies (CPS), RM 209
Dates and Times: Monday September 12 – October 31, 2005, 6:00-8:30 pm

The required textbook for this course will be available for purchase at the first class for $20.
Appendix B
Demographic Information

1. Birth date (m/d/yr): __________________

2. Age: ______

3. Ethnicity (check one): ___________ Caucasian ___________ Asian ___________ Hispanic ___________ African American ___________ Other (describe) ______________________

4. Year in school (check one): ___________ Freshman ___________ Sophomore ___________ Junior ___________ Senior other: (describe) ______________________

5. Major: ______________________

Weight History

5. Height (ft/in): ______

6. Weight (lb): ______

7. Length of time at current weight (months): ______

8. How many times has your weight fluctuated by at least 5 lb in the last year? ______

9. What is your ideal weight? ______

10. Which of the following are you currently trying to do about your weight? ______ lose weight ______ gain weight ______ maintain weight

11. Do you feel pressured to control your weight by any of the following? (please check all that apply)

   - coach ________
   - teammates ________
   - parents ________
   - peers ________
   - boyfriend or significant other ________
   - society ________
   - media ________

Nutrition History

12. How many meals (i.e., breakfast, lunch, dinner) do you usually eat per day? (Check one)

   - 1-2 ________
   - 3-4 ________
   - 5-6 ________
   - more than 6 ________

13. How many snacks do you usually eat per day? (Check one)

   - 1-2 ________
   - 3-4 ________
   - 5-6 ________
   - more than 6 ________

14. Do you skip meals?

   - never ________
   - rarely ________
   - sometimes ________
   - often ________
   - always ________

5. Do you drink alcohol? ________ yes ________ no

   - If yes, indicate the number of drinks per week: ________ (1 drink = 12 fl oz beer, 5 fl oz wine, 1½ fl oz liquor)

   - Do you ever have 5 or more drinks in one sitting? ________ yes ________ no

     - If yes, indicate the frequency: ________ several times a week ________ once a week ________ twice a month ________ less than once a month

6. Do you smoke? ________ yes ________ no

   - If yes, indicate category that fits best: ________ social smoker, less than daily ________ daily smoker

   - If a daily smoker,

     - Number of cigarettes per day: ________ ≤9/day ________ 10-20/day ________ ≥ 20/day

Sports Participation (If you do not participate in any sports, skip to the next page)

7. Do you participate in a competitive sport? ________ yes ________ no

   - If yes, ________ NCAA ________ club sponsored team

8. Years of participation in your sport: lifetime ________ collegiate ________

9. Do you play on an intramural team?

10. Do you consciously control your weight for your sport(s)? ________ yes ________ no

    - If you did not consciously control your weight, what do you think it would be? ______

11. When your season is over and you stop or reduce your training, do you

    - gain weight (amount: ________)
    - lose weight (amount: ________)
    - maintain weight

12. How often are you dieting during the off-season or when you stop or reduce training?

    - never ________ rarely ________ sometimes ________ often ________ always
Eating Attitudes Test

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am terrified about being overweight.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2. I avoid eating when I am hungry.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3. I find myself preoccupied with food.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4. I have gone on eating binges where I feel that I may not be able to stop.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5. I cut my food into small pieces.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6. I am aware of the calorie content of foods that I eat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7. I particularly avoid foods with high carbohydrate content.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8. I feel that others would prefer if I ate more.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9. I vomit after I have eaten.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10. I feel extremely guilty after eating.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11. I am preoccupied with a desire to be thin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12. I think about burning up calories when I exercise.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13. Other people think I am too thin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>14. I am preoccupied with the thought of having fat on my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>15. I take longer than others to eat meals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16. I avoid foods with sugar in them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>17. I eat diet foods.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>18. I feel that food controls my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>19. I display self-control around food.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>20. I feel that others pressure me to eat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>21. I give too much time and thought to food.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>22. I feel uncomfortable after eating sweets.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>23. I engage in dieting behavior.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>24. I like my stomach to be empty.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>25. I enjoy trying new rich foods.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>26. I have the impulse to vomit after meals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Emotional Eating Scale

We all respond to different emotions in different ways. Some types of feelings lead people to experience an urge to eat. Please indicate the extent to which the following feelings lead you to feel an urge to eat by checking the appropriate box.

<table>
<thead>
<tr>
<th>Feeling</th>
<th>No Desire to Eat</th>
<th>A Small Desire to Eat</th>
<th>A Moderate Desire to Eat</th>
<th>A Strong Urge to Eat</th>
<th>An Overwhelming Urge to Eat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resentful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discouraged</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaky</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worn Out</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excited</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Rebellious</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Blue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fittery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uneasy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irritated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jealous</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Worried</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Frustrated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lonely</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furious</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>On edge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confused</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervous</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Angry</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Guilty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bored</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helpless</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upset</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Body Shape Questionnaire**

We would like to know how you have been feeling about your appearance over the PAST FOUR WEEKS. Please read each question and circle the appropriate number to the right. Please answer all the questions.

**OVER THE PAST FOUR WEEKS:**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Has feeling bored made you brood about your shape?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2. Have you been so worried about your shape that you have been feeling that you ought to diet?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3. Have you thought that your thighs, hips or bottom are too large for the rest of you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4. Have you been afraid that you might become fat (or fatter)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5. Have you worried about your flesh not being firm enough?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6. Has feeling full (e.g., after eating a large meal) made you feel fat?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7. Have you felt so bad about your shape that you have cried?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8. Have you avoided running because your flesh might wobble?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9. Has being with thin women made you feel self-conscious about your shape?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10. Have you worried about your thighs spreading out when sitting down?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11. Has eating even a small amount of food made you feel fat?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12. Have you noticed the shape of other women and felt that your own shape compared unfavorably?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>13. Has thinking about your shape interfered with your ability to concentrate (e.g., while watching television, reading, listening to conversations)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>14. Has being naked, such as when taking a bath, made you feel fat?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>15. Have you avoided wearing clothes which make you particularly aware of the shape of your body?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>16. Have you imagined cutting off fleshy areas of your body?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
OVER THE PAST FOUR WEEKS:

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. Has eating sweets, cakes, or other high calorie food made you feel fat?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>18. Have you not gone out to social occasions (e.g., parties) because you have felt bad about your shape?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>19. Have you felt excessively large and rounded?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>20. Have you felt ashamed of your body?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>21. Has worry about your shape made you diet?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>22. Have you felt happiest about your shape when your stomach has been empty (e.g., in the morning)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>23. Have you thought that you are the shape you are because you lack self-control?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>24. Have you worried about other people seeing rolls of flesh around your waist or stomach?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>25. Have you felt that it is not fair that other women are thinner than you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>26. Have you vomited in order to feel thinner?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>27. When in company have you worried about taking up too much room (e.g., sitting on a sofa or a bus seat)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>28. Have you worried about your flesh being dimply?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>29. Has seeing your reflection (e.g., in a mirror or shop window) made you feel bad about your shape?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>30. Have you pinched areas of your body to see how much fat there is?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>31. Have you avoided situations where people could see your body (e.g., communal changing rooms or swimming baths)?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>32. Have you taken laxatives in order to feel thinner?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>33. Have you been particularly self-conscious about your shape when in the company of other people?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>34. Has worry about your shape made you feel you ought to exercise?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
### Self-Concept Clarity Scale

*Please indicate your level of agreement with each statement below.*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My beliefs about myself often conflict with one another.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. On one day I might have one opinion of myself and on another day I might have a different opinion.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I spend a lot of time wondering about what kind of person I really am.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Sometimes I feel that I am not really the person that I appear to be.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. When I think about the kind of person I have been in the past, I am not sure what I was really like.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I seldom experience conflict between the different aspects of my personality.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Sometimes I think I know other people better that I know myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. My beliefs about myself seem to change very frequently.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. If I were asked to describe my personality, my description might end up being different from one day to another day.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Even if I wanted to, I don't think I could tell someone what I'm really like.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. In general, I have a clear sense of who I am and what I am.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. It is often hard for me to make up my mind about things because I don't really know what I want.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
**Self-Esteem Scale**

*Please indicate your level of agreement with for each statement below.*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. On the whole, I am satisfied with myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. At times I think I am no good at all.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I feel that I have a number of good qualities.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I am able to do things as well as most other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I feel I do not have much to be proud of.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. I certainly feel useless at times.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. I feel that I am a person of worth, at least on an equal plane with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. I wish I could have more respect for myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. All in all, I am inclined to feel that I am a failure.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. I take a positive attitude toward myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix C
Informed Consent to Participate in Human Subject Research

Women’s Wellness & Vitality Study

University of Wisconsin - Stevens Point’s School of Health Promotion and Human Development would like to evaluate the course “Women’s Wellness & Vitality”, a new section of Health Promotion/Wellness 107. The following informed consent form is for your permission to use the survey data collected in HPW107 “Women’s Wellness & Vitality” for the research study designed to evaluate the course.

Your participation in this study is voluntary. Enrollment in the study will not affect your grade in HPW 107 in any way. **You can choose to participate in the course without being in the study.** If you do not want to participate in the study or you want to drop out of the study at any point during the course, you may do so without withdrawing from the course. This means that your questionnaires will be completed for course purposes only and not used as data for the study. If you do not want to participate in the study, please indicate this on the informed consent by writing "Exclude from study" on the signature line on the next page. You have the right to refuse to answer any question that you feel uncomfortable answering without fear or penalty.

It is possible that some of the questions may cause some degree of emotional distress as a result of revealing information about feelings or behaviors. Please know that as a volunteer participant, you have the right to refuse to provide any information you feel uncomfortable revealing. If you become personally concerned about these issues, you may seek advice and support from SP Health Services (346-4646) to make an appointment or the Counseling Center (346-3553).

Questionnaires will remain confidential. All data will be analyzed and reported in aggregate such that names or initials will not be recorded and no individual will be able to be associated with any responses they provide. Also, be assured that the confidentiality of the data collection and analysis conceals your identity and protects your privacy. None of the information you provide will be associated with your identity.

________________________________________  have received a complete explanation of the study

(print name)

I read Women’s Wellness & Vitality, and agree to participate.

Nature of participant: Date: ____________________________

(sign name)

Participant Copy  Participant Copy  Participant Copy

Please retain this page for your records. Sign and return the next page any time you have questions, please contact:

Dr. C. Wetter, PhD, CSCS  Jane Jones, PhD
School of Health Promotion & Human Development  School of Health Promotion & Human Development
CPS  238B CPS
-Stevens Point  UW-Stevens Point
(715) 346-2108  (715) 346-4414

If you have any complaints about your treatment as participant in this study, please call or write:

Dr. Sandra Holmes, Chair
Institutional Review Board for the Protection of Human Subjects
Department of Psychology
University of Wisconsin-Stevens Point
Stevens Point, WI 54481
(715) 346-3952

Although Dr. Holmes will ask your name, all complaints are kept in confidence.

Research project has been approved by the UWSP Institutional Review Board for the Protection of Human Subjects.
(print name) have received a complete explanation of the study entitled Women's Wellness & Vitality, and agree to participate.

nature of participant: __________________________ Date: ________________

(sign name)

Please give this signed page to researchers.
Appendix D
## HP/W 107, Section 5: Weeks 1-4 Course Evaluation Results

### Week 1:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The course objectives &amp; syllabus were explained clearly by the instructor.</td>
<td>1x 19</td>
<td>2x1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The exercise using a lotus blossom to explain influencing factors for food choices and body weight was a helpful tool.</td>
<td>1x 11</td>
<td>2x8</td>
<td>3x1</td>
<td>4</td>
</tr>
<tr>
<td>The handout on Journaling provided helpful information that set me started.</td>
<td>1x 3</td>
<td>2x11</td>
<td>3x6</td>
<td>4</td>
</tr>
</tbody>
</table>

### Week 2:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The group exercise on body image slogans &amp; messages is a good way to introduce cultural influences.</td>
<td>1x 13</td>
<td>2x5</td>
<td>3x2</td>
<td>4</td>
</tr>
<tr>
<td>The talk on cultural and social pressures helped me to understand the impact of media and advertising on body image.</td>
<td>1x 12</td>
<td>2x8</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Learning about the 5 key questions to ask in analyzing ads helped me to evaluate ads more effectively.</td>
<td>1x 5</td>
<td>2x10</td>
<td>3x5</td>
<td>4</td>
</tr>
</tbody>
</table>

### Week 3: Out of 18

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting ads from magazines in small groups for &quot;Caught&quot; was a fun exercise.</td>
<td>1x 12</td>
<td>2x5</td>
<td>3x1</td>
<td>4</td>
</tr>
<tr>
<td>The talk on Historical Perspective of the Perfect Body helped me that messages about the ideal body type are created by political, economic, and social climate of the world.</td>
<td>1x 7</td>
<td>2x10</td>
<td>3x1</td>
<td>4</td>
</tr>
<tr>
<td>The group exercise on &quot;Honor your personal story&quot; made me realize that other women may have similar experiences and issues growing up.</td>
<td>1x 8</td>
<td>2x9</td>
<td>3x1</td>
<td>4</td>
</tr>
<tr>
<td>The story by Karen was helpful and gave me a new perspective on appreciating my own body.</td>
<td>1x 17</td>
<td>2x1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

### Week 4:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The exercise on body size acceptance and figuring out goal weight was helpful.</td>
<td>1x 1</td>
<td>2x16</td>
<td>3x2</td>
<td>4x1</td>
</tr>
<tr>
<td>Finding positive adjectives to describe &quot;me&quot; was a fun exercise.</td>
<td>1x 4</td>
<td>2x12</td>
<td>3x4</td>
<td>4</td>
</tr>
<tr>
<td>The talk on Legalizing food and recognizing internal ger gave me a new way to look at the foods that I love.</td>
<td>1x 11</td>
<td>2x7</td>
<td>3x2</td>
<td>4</td>
</tr>
<tr>
<td>The &quot;O&quot; magazine article &quot;There's nothing like the real g, baby!&quot; was a good way to highlight the importance of eating and enjoying real food.</td>
<td>1x 9</td>
<td>2x10</td>
<td>3x1</td>
<td>4</td>
</tr>
<tr>
<td>So far this semester, what has been <strong>most</strong> helpful?</td>
<td>So far this semester, what has been <strong>least</strong> helpful?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I liked all of the stuff we have talked about. It has made me think of myself differently.</td>
<td>• I didn’t think that the BMI thing was as helpful as other things.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Everything so far has been helpful in its own way.</td>
<td>• Discussion on analyzing the media.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• Talk about what affects our self-perception of our bodies.</td>
<td>• More ideas for journaling would be helpful.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Exercises interacting with classmates.</td>
<td>• Positive adjective but I’ve hated those since grade school.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Personal stories that I could relate to.</td>
<td>• The journals don’t seem to make a point to me. I think they are unnecessary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Legalizing food, magazine ads, social/culture pressures, &amp; body image.</td>
<td>• Journaling hasn’t been my favorite thing to do because I know how I feel. I have never really been into journaling.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I like the self acceptance aspect of the course. I’ve never had a class here at UWSP that is so personable and I’ve met some people that are just like me.</td>
<td>• Learning that, according to my height, I’m overweight.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I really enjoy seeing women who are plus-sized in magazines… It shows that not all women are a size 2.</td>
<td>• Nothing. Everything has been helpful in some way.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• All of the examples are GREAT!</td>
<td>• The journaling doesn’t help me, it’s very repetitive and there’s only so much to be said about how you feel on certain topics. Maybe less journaling would be helpful in really gaining perspective.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Reading “Reviving Ophelia”.</td>
<td>• Everything has been great.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I thoroughly enjoy our text book. It’s great reading material. I enjoy our class discussions. It’s interesting to know everyone’s point of view.</td>
<td>• I didn’t really find the name thing helpful.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Seeing and learning about the everyday aspects of life that influence our body image (family)</td>
<td>• Finding articles in magazines. We know they are there but we really didn’t talk so much about different options or what the models may have thought when they did the shoot.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I have learned a lot from the readings and find them to be nice, easy, helpful reads, people are open to share.</td>
<td>• Nothing really…everything taught.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Class discussions, examples (stories) in power point, magazines, etc.</td>
<td>• Most of the exercises combined help me to be more accepting of my body</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• What exact body weight we should be.</td>
<td>• Legalizing food and learning the importance of mind over matter. That we are our own critics and we don’t have to be, to be happy with who we are.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I like all the areas, topics we have discussed so far because it is a variety from history to present. I like the text and the poems in it.</td>
<td>• There’s more focus on accepting your body, rather than how to “fix” it, interesting topics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Doing activities that demonstrate the ideas in this class.</td>
<td>• Different eating habits and different ways people try to lose weight.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• I think all the little exercises were fun they also tied everything together. I also liked the readings (O Magazine, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
So far this semester, what has been **most helpful?**

<table>
<thead>
<tr>
<th>Teaching Style</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I like that we work in groups and then share things as a whole class.</td>
</tr>
<tr>
<td></td>
<td>It has been done to the best of the teacher’s ability and that’s all that can be asked.</td>
</tr>
<tr>
<td></td>
<td>Discussion in class.</td>
</tr>
<tr>
<td></td>
<td>Friendly atmosphere, very personable.</td>
</tr>
<tr>
<td></td>
<td>Open discussion.</td>
</tr>
<tr>
<td></td>
<td>Combo of discussion and lecture is helpful and helps break up such a long class period.</td>
</tr>
<tr>
<td></td>
<td>I love group activities and our book is very inspirational and fun to read.</td>
</tr>
<tr>
<td></td>
<td>Great slide shows, magazines, etc. with great pictures.</td>
</tr>
<tr>
<td></td>
<td>I can relate emotional stories in class to the book very well.</td>
</tr>
<tr>
<td></td>
<td>Great teaching style. It’s not too often you find professors who keep your full attention for 2 ½ hours.</td>
</tr>
<tr>
<td></td>
<td>I like working in groups – sometimes not w/ the personal stuff.</td>
</tr>
<tr>
<td></td>
<td>Teacher seems well informed and provides activities that fit what we are learning about.</td>
</tr>
<tr>
<td></td>
<td>Telling your own thoughts and stories.</td>
</tr>
<tr>
<td></td>
<td>The showing of the magazine ads.</td>
</tr>
<tr>
<td></td>
<td>Discussing or doing an overview of what we did the class prior to the class that day – a good reminder. I like the power point presentations.</td>
</tr>
<tr>
<td></td>
<td>I like how the class is constructed.</td>
</tr>
<tr>
<td></td>
<td>I appreciate how you get everyone involved. I love the group exercises. I also appreciate how you give us time to do our work and then go back to make sure we understand.</td>
</tr>
<tr>
<td></td>
<td>Very clear and goes over material very well.</td>
</tr>
<tr>
<td></td>
<td>Journaling has been very helpful and the extra credit assignments have opened my eyes to a new way of thinking.</td>
</tr>
<tr>
<td></td>
<td>Very relaxed atmosphere, clearly explained objectives.</td>
</tr>
<tr>
<td></td>
<td>Being taught how to control</td>
</tr>
</tbody>
</table>
Week 5: Out of 19

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x9</td>
<td>2x8</td>
<td>3x1</td>
<td>4x1</td>
<td>5</td>
</tr>
</tbody>
</table>

The handout & discussion on “French Women Don’t Get Old” demonstrated that we should take pleasure in eating foods that we enjoy; even small portions can be more satisfying.

The talk on the sensual nature of eating, food textures & flavors showed me that eating with full awareness can make eating more satisfying.

The mindful eating experience helped to define the meaning of attuned eating with full awareness.

Dr. Jones’ session on relaxation and self-hypnosis was useful and provided me with some useful imagery to practice relaxation on my own.

Week 6: Out of 17

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x2</td>
<td>2x12</td>
<td>3x3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The group exercise “As I see It” provided a good framework for the meanings of wellness & illness.

It was helpful to learn about the 7 Dimensions of Wellness and be introduced to the wellness quiz.

The group exercise on normal & abnormal eating and exercise illustrated that eating and exercise should be flexible, guided by my body.

The talk on “Why Diets Fail?” provided me with an understanding of why weight loss is not easy and regulated by factors relating to genetics, evolution, and adaptation.

The article “Even weight experts get the munchies” was restful and useful in illustrating that even experts struggle with the same issues that we do.

The talk on the “10 common, controllable behavior errors…” gave me a good overview of factors that affect weight and health.
at did you like or dislike about the optional assignments? (Please base your comments on the assignments that you
completed.) Comments taken directly from students’ evaluations without corrections.

I liked seeing how people were different shapes and sizes.
I liked that they complimented certain topics that we discussed in class.
I liked how we could pick the book we wanted to read so it would hold our interest.
I liked the optional assignments because they were fun and I would have never watched “Super Size Me” on my own so I am glad it was optional and that I saw it.
I liked that we were asked to write about our opinions on the subject matter.
I thought the optional assignments were a good way to expose us to other aspects of health.
More movie choices would have been nice. Possible access to digital cameras on campus or scanner.
I liked having the choice of what to do, but more options would have been nice.
There wasn’t very much variety with the optional assignments. Also not a whole lot of room for creativity, with the exception of the poetry assignment.
I enjoyed reading more about eating habits in young adults. It helped me realize more about the struggles about be a teenager. The move Super Size Me was excellent. It opened my eyes to how “screwed-up” parts of our nation are.
I liked them. The movie made me think more about what I eat, and how much I eat. Also taking pictures and figuring out BMI made me realize that different shapes and size bodies really can be good.
I loved the optional assignment. I would have done them all they were all fun. I also liked how you put some in that we could be creative about.
I like that we had the option to see “Super Size Me”, it was very informative and I learned a lot from it.
I enjoyed doing the assignments, especially watching the video. I did also enjoy the book review but I think if we all had to read the same one we could get more discussion out of it. Another possible idea could be to track the foods that we ate during the week. If it was after the diet part, we could count our calories or track energy in and energy out. We would have a more realistic point of view.

<table>
<thead>
<tr>
<th>Dr. Wetter’s presentation on exercise answered my question(s) and provided me with some basic understanding of the effects and benefits of exercise.</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x7</td>
<td>2x10</td>
<td>3x2</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

The talk on “Sports Nutrition 101” gave me useful information on fluids and food for exercise.

<table>
<thead>
<tr>
<th>The information presented in “What should I eat?” helped to understand the daily food choices for a healthy diet.</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x6</td>
<td>2x11</td>
<td>3x2</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

The information on label reading increased my awareness of what to look for on a food label.

<table>
<thead>
<tr>
<th>Spending time on reading food labels in small groups and working with the rest of the class was a good exercise and helped me to practice the task.</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x3</td>
<td>2x10</td>
<td>3x6</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

The talk on “Nutrition & women’s health” was helpful in addressing women’s nutrition issues.

<table>
<thead>
<tr>
<th>The exercise on goal setting was helpful in starting to outline my personal exercise goals.</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1x4</td>
<td>2x11</td>
<td>3x3</td>
<td>4x1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Over the past 4 weeks, what has been <strong>most helpful?</strong> Comments taken directly from students' evaluations without corrections.</td>
<td>Over the past 4 weeks, what has been <strong>least helpful?</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Exercise information. What to look for in foods.</td>
<td>• Everything has been helpful.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• More on healthy foods and exercising... helped me out a lot w/ good food choices.</td>
<td>• Textbook. I feel as if I don't need it.</td>
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<tr>
<td>• Talks &amp; tips about attuned eating.</td>
<td>• Info. on fluids and food for exercise</td>
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<tr>
<td>• Figuring out that eating things in moderation is ok.</td>
<td>• Personally the food labels it was interesting to discuss but I already read the labels.</td>
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<tr>
<td>• I really liked the activities like the relaxation, that was very helpful in helping me become knowing of my inner thoughts.</td>
<td>• Journaling</td>
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<tr>
<td>• Discussing relaxation and attuned eating</td>
<td>• I still don't like the journal entries.</td>
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<tr>
<td>• Why diets fail.</td>
<td>• The article on weight experts getting the munchies wasn’t overly helpful.</td>
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<tr>
<td>• I really enjoyed the relaxation talk; I have found myself using it recently.</td>
<td>• ?</td>
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<tr>
<td>• I liked talking &amp; focusing on women related issues. It is an awesome class.</td>
<td>• Nothing</td>
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<tr>
<td>• I really enjoyed Dr. Wetter’s presentation on exercise. It answered a lot of my questions.</td>
<td>• I didn’t really like reading the food labels very much.</td>
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<tr>
<td>• Everything.</td>
<td>• Label reading. It was helpful but I lost interest because I have done a lot of it in other classes. Sports nutrition talk did not interest me.</td>
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<tr>
<td>• I enjoyed all the in class activities and feel that I have gained a lot about nutrition &amp; physical activity. Especially Dr. Wetter’s talk on exercise.</td>
<td>• Not enough discussions in class. I don’t think we were comfortable enough talking about our personal goals or setbacks.</td>
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<tr>
<td>• I really thought that the nutrition stuff was good. Also exercise stuff.</td>
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<tr>
<td>• I really enjoyed all the journaling, exercise talk, mindful eating.</td>
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<td>• I really enjoyed week 7 and all that we did – I found it very informative &amp; useful.</td>
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<tr>
<td>• Watching the video and hearing the exercise presentation.</td>
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<tr>
<td>Over the past 4 weeks, what has been <strong>most helpful?</strong></td>
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<tr>
<td>Comments taken directly from students’ evaluations without corrections.</td>
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<tr>
<td>Having Dr. Wetter &amp; Dr. Jones come in was helpful.</td>
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<tr>
<td>Teaching was great. Good idea to split up into little groups and share w/the class.</td>
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<tr>
<td>Pointing out things like the food labels.</td>
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<tr>
<td>I liked the Power points &amp; having them e-mailed to us so we can print them off to look @ &amp; refer to.</td>
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<tr>
<td>Hands-on activities; discussion.</td>
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<td>I love the format for this class; it allowed a very relaxed &amp; fun atmosphere for discussion.</td>
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<td>The Power points are great in helping explain the material that is being talked about.</td>
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<td>I like being in a small class and being able to talk as a group. I wouldn’t want a class size larger than this one.</td>
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<td>The teacher went over in good detail all of the information presented in class.</td>
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<tr>
<td>Everything.</td>
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<td>I feel that I have been educated more in a two-credit class than in a five-credit class. I love it!!</td>
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<td>I liked working in small groups and then sharing to class.</td>
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<tr>
<td>You did a great job of keeping us interested. This was my “fun” class I am sorry it is over. You did a great job!!</td>
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<tr>
<td>Very good Power points.</td>
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<tr>
<td>Taking notes &amp; handouts.</td>
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</table>

| Over the past 4 weeks, what has been **least helpful?** |
| Nothing was least helpful. |
| Nothing really to say here. |
| ? |
| Nothing |
| It would have been nice to get the Power point notes to refer to after you talked about it. |
| I wouldn’t change a thing you were very thorough. Great job! |
| Always reading off the slides, not enough real life examples given that we could relate to. |

**Teacher comments:**
The book had nice exercises and good reading material in it.
Textbook was ok but there didn’t seem to be much to it.
The book was great choice & I will reference it in the future. Maybe signing an actual wellness petition we write for ourselves (future classes). You are all wonderful good hearted people & I enjoyed being in your presence!
I loved the textbook! Great stories, excerpts, poems, quotes! Great class!
The book was great.
Very good class. I would recommend it for anyone!!
I really liked the textbook.
Really enjoyed the class.

Thank you!