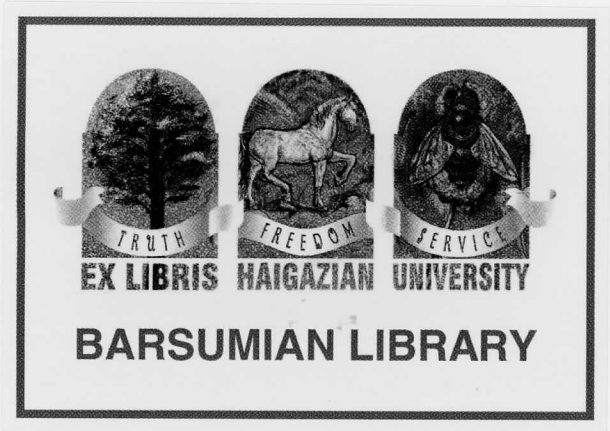


HAIGAZIAN UNIVERSITY

Intuitive Eating, Body Dissatisfaction, Self-Esteem, BMI, and Relationship Satisfaction among University Students in Lebanon

Maria Tekeyan

A Thesis submitted to the Faculty of Social & Behavioral Sciences in partial fulfillment of the requirements for the Master of Arts degree in Psychology – Emphasis Clinical at Haigazian University

Beirut – Lebanon

June 6, 2012

Thesis release form

I, Maria Tekeyan,

☒ Authorize Haigazian University to supply copies of my thesis to libraries or individuals upon request.

☐ Do not authorize Haigazian University to supply copies of my thesis to libraries or individuals for a period of two years starting with the date of the thesis defense.

Signature

June 6, 2012

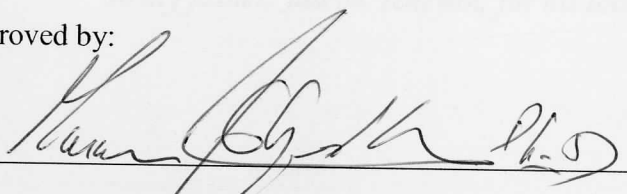
Date

HAIGAZIAN UNIVERSITY

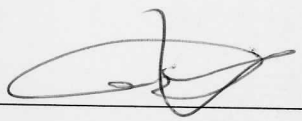
Intuitive Eating, Body Dissatisfaction, Self-Esteem, BMI, and Relationship Satisfaction among University Students in Lebanon

Maria Tekeyan

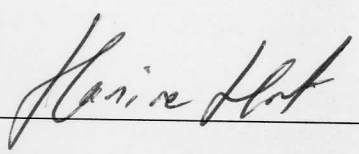
Approved by:



Dr. Marwan Gharzeddine, Ph.D., Advisor



Dr. Daoud Twil, Ph.D., Reader



Dr. Hanine Hout, Ed.D., Reader

DEDICATION

To my father, Joseph Tekeyan, for his love, support and patience

ACKNOWLEDGMENTS

This thesis is the end of my journey in obtaining my M A. It would have not been possible without the help and support of my professors, colleagues and friends. I would like to thank all those who contributed in many ways to the success of this study. Acknowledgments go to my professors at the Psychology Department of Haigazian University, without their support, this would have been difficult to do. I am much thankful to **Dr. Marwan Gharzeddine**, my professor and advisor, under his guidance I overcame many difficulties and learned a lot. I gratefully acknowledge **Dr. Daoud Tawil** for his constructive criticism, helpful advice and valuable suggestions. Many thanks are due to **Dr. Hanine Hout** for her encouragement and moral support. The list is incomplete without acknowledging my Dietetics professor at the American University of Beirut, **Dr. Imad Toufeily** who was always the source of inspiration for me and who encouraged me to start my M.A program in Clinical Psychology. I owe gratitude to my colleague and friend, **Gary Zeitounlian**, who kept me going at the beginning and supported me. My appreciation goes to my friend, **Elie Obeid**, who devoted his precious time to help me collect my data, and stood by me till the end. Thanks should also be given to **Talar Agopian**, my colleague and friend, without her help, this would have been hard. Finally, special thanks to my family and friends for their constant love, care and motivation.

Table of Contents

Abstract

The topic of this thesis is centered on identifying associations between intuitive eating and self esteem, body dissatisfaction, body mass index and relationship satisfaction, as well as examining gender difference in intuitive eating. The results were based on the analysis of participants' scores on the Intuitive Eating Scale, Rosenberg Self Esteem Scale, Marital Taxon Self-report Measure, and Body dissatisfaction subscale from the Eating Disorder Inventory. The participants were 132 randomly selected students (65 males and 67 females) from six major universities in Lebanon. Results were consistent to the original hypotheses; individuals who scored high on intuitive eating were more satisfied in their relationships, had higher self-esteem, lower body dissatisfaction and lower body mass index. Contradictory to the hypothesis, a significant mean difference was found between males and females, rejecting the hypothesis that males and females score alike when it comes to intuitive eating. The results propose new treatment plans and dieting strategies for weight loss patients.

Intuitive Eating, Body Dissatisfaction, Self-Esteem, BMI, and Relationship Satisfaction among University Students in Lebanon

The focus of this thesis is to investigate associations between intuitive eating and four factors; self esteem, body dissatisfaction, body mass index and relationship satisfaction, and to verify that there's no gender difference in intuitive eating. The study's results were based on the analysis of the scores on the participants' completion of four reliable scales, The Intuitive Eating Scale, Rosenberg Self Esteem Scale, Marital Taxon Self-report Measure, and Body dissatisfaction subscale from the Eating Disorder Inventory. Body Mass Index was calculated according to the participants' self-reported weight and height. The first chapter presents the background of the study, describes the significance of the study, presents an overview of the methodology used and states the delimitations.

Background of the Study

Diet is the number one booming business in the world. Almost everyone tried dieting at least once in their life, the young, the old, the fat and the fit. But surprisingly, most of the dieters that have lost weight, gain it back in a year or so. For every ten people attempting to lose weight, eight have tried dieting before and either failed or gained all the lost weight back. If you Google the word "Diet" you get about 16,500,000 links, suggesting hundreds of ways to diet. People spend fortunes on diet products, diet foods, diet drinks, diet pills and diet books, but still, they keep gaining weight.

More and more studies are showing that there are psychological factors that affect ones eating habits. Many people simply eat out of emotions, stress or boredom. We have all heard the term "feeding your emotions." It's when you eat because your emotions are

hungry. Eating out of emotions may contribute to such negative outcomes as overeating, obsessive food consumption, harmful dieting, mindless eating, and dysfunctional relationships with food. Intuitive eating, on the other hand, is eating out of biological hunger signals rather than situational or emotional signals.

Relationship satisfaction can affect dieting behaviors; existing literature suggest that relationship quality can influence individuals' dieting behaviors (Markey, Markey, & Birch, 2001), body dissatisfaction (Friedman, Dixon, et al., 1999) and disordered eating patterns (Humphrey, 1989). But there are no current studies linking relationship satisfaction with intuitive eating. It's crucial to understand the link between relationship quality and dieting behaviors among couples in order for clinicians to help people struggling with their weight to regulate their eating. Many eat out of emotions rather than hunger, because they're simply unsatisfied in their relationships and feel a lack of love, so they fill up that gap with food. By measuring relationship satisfaction, we can examine one's lack of love; if they're satisfied in their romantic relation, it means there's no lack of love, if they're dissatisfied, then probably there is lack of love. In this thesis, it is predicted that intuitive eating is negatively correlated with relationship dissatisfaction (Hypothesis 1).

Prior studies have shown that body dissatisfaction is considered a risk factor for developing eating disorders (Fairburn, Doll, et al., 1998; Leon, Fulkerson, et al., 1999). People who are dissatisfied with their body are prone to put unrealistic dieting goals and follow very strict diets, in order to lose weight quickly. Strict dieting is associated with low levels of intuitive eating which explains why research has shown that body dissatisfaction is negatively correlated to intuitive eating (Tylka & Wilcox, 2006; Van

Diest, & Tylka, 2007). However, body image may be affected by cultural beliefs and values regarding beauty and attractiveness. In fact, a study conducted on Lebanese university students found that 64% were not worried about their weight (Yahia, El-Ghazale, Achkar, & Rizk, 2011). If we take Haifa Wehbe, the Lebanese number one sex symbol to whom every Lebanese woman wants to resemble, we realize that unlike American top models, she's not exactly a size zero! Lebanese men definitely appreciate some plumpness so it could be that body dissatisfaction is not exactly a major issue among Lebanese women. As for Lebanese men, having a fat belly is actually a sign of manhood, and financial status is much more of a priority for them than physical looks. In fact, having six packs won't help them pick up women, but having a fancy car will. The cultural aspect creates ambiguity regarding this topic, and therefore, the attempt of this study is to extend on past research to see if we can generalize the results obtained in the west, mainly between body dissatisfaction and intuitive eating (Hypothesis 2).

Self-esteem is a possible correlate for intuitive eating. Low self-esteem affects one's eating habits; it has been linked to increased risk of developing eating disorders (Fairburn, Doll, et al., 1998; Leon, Fulkerson, et al., 1999). Previous research has proved that low self-esteem negatively influence intuitive eating (Tylka & Wilcox, 2006; Van Diest, & Tylka, 2007). No studies have been conducted in Lebanon regarding the relationship between intuitive eating and self-esteem. This thesis predicts that low self-esteem is negatively correlated to intuitive eating (Hypothesis 3).

Body Mass Index is also predicted to correlate with intuitive eating because if people stop eating when they're full, they won't overeat and will maintain a healthy weight. Previous studies stated that having a relaxed attitude towards dieting, and

intuitive eating are both related to lower BMI (Smith, Williamson, et al., 1999; Tylka & Wilcox, 2006; Hawks, Madanat, et al., 2005). No studies were conducted to prove if this correlation exists among the Lebanese. This thesis predicts finding a negative correlation between intuitive eating and high Body Mass Index (Hypothesis 4).

Studies have shown that there are distinct gender differences in disordered eating (Meyer & Waller, 1998; Murnen, Smolak, 1997; Tata, Fox, & Cooper, 2001). As for intuitive eating, men were found to be more of intuitive eaters than women (Van Diest & Tylka, 2007). Results were proof that girls were more of emotional eaters than males. However, no studies have been conducted examining gender differences in intuitive eating in Lebanon. This is worth researching because in the Lebanese culture, eating for non physiological reasons is common in both men and women. Food in Lebanon is a social event; it tied to family and friends unlike in Europe and the States where people almost never eat alone. In fact, Lebanese people may spend several hours eating, way past satiety, enjoying a traditional 'meza' which can consist of more than 20 dishes; so even men can lack intuitive eating. The question is, 'is the gender difference on the intuitive eating level significant in Lebanon?' This thesis proposed that there is no gender difference regarding intuitive eating (Hypothesis 5).

The construct of intuitive eating is still new which is why there is somewhat limited research on the topic. Further exploration on the subject will be regarded as valuable since no studies have been conducted in Lebanon on the issue of intuitive eating. Most of the research is conducted in countries such as Europe, the United States and Canada, and the literature review is based on the findings conducted in those "Westernized" countries where views vastly differ from the views in Arab and Middle-

Eastern countries. Hence it's of major importance to observe if those findings apply to Lebanon.

The Problem Statement

In sum, and based on the above mentioned review of literature, several hypotheses were proposed for this study:

1. There will be a negative correlation between relationship dissatisfaction and intuitive eating; (individuals who are dissatisfied in their relationship score lower on the Intuitive Eating Scale.)
2. There will be a negative correlation between body dissatisfaction and intuitive eating; (individuals who are dissatisfied with their body will score lower on the Intuitive Eating Scale.)
3. There will be a positive correlation between Self-esteem and Intuitive Eating; (individuals who score high on the Self-Esteem scale eat in response to physiological rather than psychological hunger.)
4. There will be a negative correlation between Body Mass Index and Intuitive eating; (the higher an individual's body mass index, the less of an intuitive eater he is.)
5. There will be no gender difference in intuitive eating.

The Professional Significance of the Study

As more dietitians open clinics and work with weight-loss clients with various problems, it is important for them to understand that nutrition knowledge is not enough, there are psychological issues that need to be addressed. Dietitians can explain to an overweight patient what he must eat and the portions he must consume, but if the patient

happens to be eating out of stress or emotions, no matter how much he tries to control himself and follow the dietitians guidelines, he will fail to change his eating habits and eventually give up on the diet because the core issues aren't solved. Since no studies have been conducted in Lebanon on the issue regarding intuitive eating, this thesis can be viewed as one of its kind in the fact that it investigates factors that are associated with emotional eating among Lebanese students. In order to help weight-loss clients better, it's important to study what could influence a person to eat intuitively and what could affect him to simply eat out of emotions. Once the influences are understood, we can target them in order to help individuals regain a normal relationship with food and achieve a healthy body size.

Results of this study will be helpful in establishing the usefulness of intuitive eating as a potential weight loss program in Lebanon. It can help the Lebanese dietitians' understanding about the root behind their clients' weight problem and help them improve their work in the clinic by also focusing on underlying issues that affects ones weight such as lack of love, body dissatisfaction and low self-esteem. They will also learn the importance of incorporating intuitive eating training in their weight loss program. Reading this study will also help psychologists who are dealing with overweight patients to understand them better and to realize how important it is to help them overcome their unhealthy relationship with food.

Overview of the Methodology

The nature of the study was quantitative and it used the correlational analysis and t-tests to measure the differences between groups. The participants filled out the four objective scales: The IES (Intuitive Eating Scale), the RSE (Rosenberg Self Esteem

Scale), the BD (Body Dissatisfaction) subscale from the EDI-2 (Eating Disorder Inventory-2), and the MTSM (Marital Taxon Self-report Measure). Participants were also asked to report their weight and height in order to calculate their BMI (Body Mass Index).

The IES measures intuitive eating, it's a 21 item scale, in a five point Likert scale format, consisting of three subscales, (1) unconditional permission to eat, (2) eating for physical rather than emotional reason and (3) reliance on internal hunger/satiety cues. All items were rated from 1 to 5 points. Items for each subscale, as well as the entire Intuitive Eating Scale were averaged. High scores on the entire scale indicate high levels of intuitive eating. The RSE consists of 10 items measuring self-esteem. The scale was in a four point Likert scale format. Items were rated from 0 to 3. All items were averaged with higher scores indicating high levels of self-esteem. BD consists of 9 items measuring body dissatisfaction. The scale was on a six-level Likert scale format. Items were scored from 0 to 3. All items are averaged with high scores indicating high levels of body dissatisfaction. Relationship satisfaction is measured using MTSM which consists of ten true or false statements. Only participants who ticked 'Engaged or in a long-term relationship', and 'married' were asked to complete it. Items were rated either 0 or 1. All items were averaged and higher scores indicated less relationship satisfaction.

The participants were randomly selected from six different university campuses in Lebanon, AUB (American University of Beirut), LAU (Lebanese American University), NDU (Notre Dame de Louaizy University), USEK (University Saint Esprit Kaslik), AUST (American University of Science and Technology) and HU (Haigazian University). Questionnaires were distributed on campus at random, during class hours.

Participants were free to agree to take part in the study or decline. Those who accepted to participate were required to fill the questionnaire without including their names. The interviewer was available to answer any question raised by the participants. Individuals who failed to complete the questionnaire fully were not counted as part of the study.

Delimitations of the Study

This study had several delimitations. Participation in this study was delimited to students from six universities in Lebanon. The decision to choose students as participants was first because dieting behavior is more common among students, second because it's more convenient to collect data from large institutions. Students who were below 18 years of age were excluded from the study, since the questionnaire included a scale that measures relationship satisfaction and, hence, data collected from participants younger than 18 might not have given accurate results. Body Mass Index scores were delimited to the participants' self-reported height and weight.

Definition of Key Terms

In this segment a definition of the key terms is provided:

Intuitive eating: eating according to your internal, biological hunger signals rather than situational or emotional signals (Tribole & Resch, 2003).

Binge eating: eating large amounts of food even when not hungry, much more rapidly than normal, until feeling uncomfortably full (DSM-IV-TR).

Body Mass Index (BMI): an index that correlates significantly with body fatness, used to help evaluate a person's degree of obesity. It's calculated with the formula: Weight in kg divided by the square of Height in meters, producing a unit of measure of kg/m^2 (Lee, & Nieman, 1996).

CHAPTER 2

Literature Review

Dieting has become a popular trend amongst people, young and old because more and more, individuals are placing high importance on their physical appearance. Many studies were conducted to indicate the incidence of dieting. In one research conducted on college female students, 83% reported dieting regardless their weight status (Malinauskas, Raedeke, et al., 2006). Somehow people think that losing weight is the answer to all their problems. In many cultures, a person's appearance especially among women is highly valued. A female's self-worth, happiness and success seem to be determined by her physical appearance. Societal standards of beauty in Western cultures are very high. Media displays a perfect body image which in many cases is unattainable, but creates insecurities in everyone. Media has direct influence on dieting behavior; the more exposure to media, the greater the dietary restraint (Dunkley, Wertheim & Paxton, 2001).

But even though everyone is so concerned about their weight and often attempt to diet, dieting seems to be the hardest thing to do. In a society where we are exposed to mouthwatering meals everywhere we look, many fail to pursue a healthy diet for too long. Whether it's the lack of motivation, or the fast food chains around the corner, people keep on gaining weight no matter how concerned they are about their appearance and regardless of all the knowledge they have about dieting, through the media, the internet or their next door neighbor. Eating has become more like an activity. People don't eat anymore because they're physiologically hungry; they do it as a social activity, or because they're out, or they're bored, or stressed, or simply at the sight of that candy

box grandma sent from Brussels. It appears that people frequently eat for reasons besides hunger. In fact, a survey done by Hope Health letter (1996) asked 500 nutrition counselors in the US to identify the top 10 reasons people overeat. Hunger was not on this list!

Psychologists have long recognized that overeating can be a normal response to stress, anger, or an emotional crisis. Psychological hunger is most probably the reason why people are not losing weight. People overeat and become obese because they eat for non physiological reasons. Studies have shown that obese adults are more likely to eat in response to external factors rather than physiological needs (Davis, Levitan, et al., 2008) On the other hand, intuitive eaters, those who eat according to their biological hunger cues, learn to pay attention to body signals and eat appropriate amounts of food for their physiological needs. Intuitive eating is linked to lower body mass index and increased psychological well-being (Tylka & Wilcox, 2006). Previous studies also suggest many factors influencing intuitive eating, as well as gender differences regarding eating behavior.

Intuitive Eating

Intuitive eating is eating according to your internal hunger cues rather than emotional signals (Tribole & Resch, 2003). The Intuitive Eating Scale (Tylka, 2006) is a psychometric measure which assesses an individual's ability to eat intuitively. It is composed of three constructs: unconditional permission to eat; eating for physical hunger, not to cope with emotions; and reliance on internal hunger and satiety signals to govern eating. The first construct, unconditional permission to eat, is eating whatever the body pleases without forcing yourself to avoid it because when you

don't give permission to yourself to eat a certain food, the body will crave it and you will become preoccupied with that food, making it more likely to binge on it. The second construct of intuitive eating, eating for physical hunger, not to cope with emotions, is eating only when you are physically hunger not eating for situational or external reasons such as sadness or boredom. The third construct, relying on internal hunger and satiety cues to govern eating, involves listening to the body's internal hunger and satiety cues. Many factors can teach people to ignore internal hunger and satiety cues over time, such as maladaptive feeding strategies from caregivers (Birch, 1999), following strict diets (Mussell, Mitchell, et al., 1995), and being around people who are obsessed with food (Edmunds & Hill, 1999). One study suggests that intuitive eating is positively correlated to self-esteem, life satisfaction, proactive coping, optimism, positive affect, better interoceptive awareness, lower risk for eating disorders, lower BMI, and lower body dissatisfaction (Tylka & Wilcox, 2006). Intuitive eating is also negatively correlated to certain personality characteristics including body dissatisfaction, poor interoceptive awareness, low self-esteem, pressure for thinness, internalization of the thin ideal, and body mass (Tylka, 2006).

Interpersonal Relationships and Eating Behavior

It is no surprise that interpersonal relationships affect ones psychological well-being, but what about dieting behavior? Presumably, one reason why people (especially women) diet is to look more attractiveness in the eyes of potential or existing romantic partners (Fletcher, 2002). Men who place great importance on the physical aspects of their romantic partners, such as the women's body size and shape, influence their partners' weight concerns and eating behavior (Smith, Waldorf, & Trembath, 1990). But

links between relationships and dieting behaviors are different for men and for women. In one study, men who were unsatisfied with their relationships had female partners who dieted more and were dissatisfied with their bodies. Other studies suggesting that marital quality can influence individuals' dieting behaviors, have shown that women who are in more satisfying relationships engage less in unhealthy dieting (Markey, Markey, & Birch, 2001) whereas those with marital discord predicted higher body dissatisfaction (Friedman, Dixon, et al., 1999).

Other findings also suggest that disordered eating patterns among female adolescents are promoted when there is discordance in interpersonal relationships (Humphrey, 1989). A study on bulimics, the severity of symptoms was negatively correlated with positive ratings of interpersonal relationships with men (Thelen, Farmer, et al., 1990). So far, no studies have examined the link between intuitive eating and relationship dissatisfaction. When couples have problems, it's very likely that they turn their backs against each other, and feed their anger with soothing food in order to calm down. It's crucial to understand the link between relationship quality and dieting behaviors among couples in order for clinicians to help people, struggling with their weight, to regulate their eating.

Body Dissatisfaction and Eating Behavior

In a world where magazine models are the idols for physical attractiveness, it is no wonder why body dissatisfaction is highly common in people. A person has low body satisfaction if he dislikes his body and associates specific parts of his body with fatness. A large portion of adolescent girls report significant body dissatisfaction (Thompson, Heinberg, et al., 1999). In one research examining aspects that influence body image in

female adolescents, a relationship was found between being exposed to appearance magazines and body dissatisfaction (Jones, Vigfusdottir & Lee, 2004). Another study revealed that the higher a women's level of body dissatisfaction, the more likely she was to engage in social comparison from exposure to ideal body images (Bessenoff, 2006). Prior research also found a positive relationship between body dissatisfaction and internalization and acceptance of societal standards (Heinberg, Thompson & Stormer, 1995) which means, the more one believes he should/could look like a model, the more he is dissatisfied with his body. Body dissatisfaction is also linked with marked emotional distress, appearance rumination, and unnecessary cosmetic surgery (Ohring, Graber, & Brooks-Gunn, 2002).

What about eating habits? How's body dissatisfaction linked to eating habits? Researchers found that body dissatisfaction is a risk factor for developing eating disorders (Fairburn, Doll, et al., 1998; Leon, Fulkerson, et al., 1999). People who are dissatisfied with their body follow restrained diets which can have negative psychological consequences. Those who follow strict diets and crave foods for too long may lose the ability to regulate their own food intake because they learn to ignore true hunger cues; over time these people may eat not as a response to the feeling of emptiness in the gut but simply in response to environmental cues such as the simple sight of food, and end up eating far more than their body needs. This explains why body dissatisfaction was found to negatively correlate with intuitive eating (Tylka & Wilcox, 2006; Van Diest, & Tylka, 2007).

In Lebanon, however, a study conducted on university students found that 64% were not worried about their weight (Yahia, El-Ghazale, Achkar, & Rizk, 2011). This is

no surprise since body image can be highly affected by cultural beliefs and values regarding beauty and attractiveness. In Lebanon, voluptuous figures are still considered attractive, in fact, even the media portrays women differently than in the West; artists like Miriam Fares and Haifa Wehbe, have full figures and are seen as attractive sex symbols that many Lebanese woman want to resemble. Even men in Lebanon still consider that having a 'Keresh' i.e. a fat belly, is actually a sign of manhood. They live by the rule that states "rejjel bala keresh ma byeswa eresh" which means that a man without a belly is not worth a penny! Lebanese men don't place much importance on their physical looks; instead they rely on their financial resources to attract the opposite sex. This puts a question mark on the occurrence of body dissatisfaction in Lebanon and how much it actually affects eating habits. Is body dissatisfaction not related to intuitive eating? Or do Lebanese, similar to people in the West, eat according to non-physiological factors as a reaction to their low body image? It is predicted that, regardless the cultural difference between Western countries and Lebanon, intuitive eating is negatively correlated to body dissatisfaction.

Self-esteem

According to Rosenberg, self-esteem is defined as "the attitude, whether positive or negative, that people have toward themselves" (Rosenberg, 1965). It's the way one perceives himself, and his feelings of self worth which affects his self-evaluation (Mruck, 2006). It's the development of healthy feelings and attitudes toward the self that generate an inner strength and motivation (Annamaria and Alesi, 2006). Regardless of status and achievements, people with high self-esteem are proud of themselves (Smith, 2006), and have the courage to try out new things and believe in how important they are to others in

their abilities (Grumm, Nestler, & von Collani, 2009). People with high self-esteem are secure, they live a balanced and healthy life, and focus their attention on their strengths (Sciangula & Morry, 2009).

Self-esteem is linked to eating habits. Researchers found that low self-esteem is associated with eating disorders (Leon et al., 1999; Vohs et al., 1999). It's a known risk factor for the onset of eating pathology among adolescent girls (Attie & Brooks-Gunn, 1989; Rierdan, Koff, & Stubbs, 1989). As for intuitive eating, studies found that low self-esteem negatively influence intuitive eating (Tylka & Wilcox, 2006; Van Diest, & Tylka, 2007). It's important to extend past research relating intuitive eating to self-esteem, and examine its presence among the Lebanese students.

Body Mass Index

In today's society, thinness seems to be considered as a synonym to attractiveness. How much a person weighs has become a measure of his worth, attractiveness, or likelihood to succeed. The Body Mass Index (BMI) is an index that correlates significantly with body fatness and experts use it to help evaluate a person's health risks associated with being overweight. BMI is valuable for evaluating degrees of obesity. The formula is defined as the individuals body mass in kilograms divided by the square of his or her height in meters, producing a unit of measure of kg/m^2 (Lee, & Nieman, 1996). The current value settings are as follows: a BMI of 18.5 to 25 indicates optimal weight; a BMI lower than 18.5 suggests the person is underweight while a number above 25 indicates the person is overweight; a number above 30 suggests the person is obese and if over 40, morbidly obese.

Studies have shown that BMI is not only a measure of one's degree of obesity but also a major predictor of women's attractiveness (Tovee, & Cornelissen, 2001). In young students, higher BMI scores were associated with body size dissatisfaction, lower peer esteem, and more attempts to lose weight (Mirza, Davis, & Yanovski, 2008). People with lower BMI scores, have less anxiety related to food and fewer dieting behavior (Smith, & Hawks, 2006). It is no surprise that individuals who have higher BMI are more likely to diet than those who have lower BMI, however, in a study conducted on college female students, 83% reported dieting regardless their weight status (Malinauskas, Raedeke, et al., 2006).

In studies done on dieting individuals, flexible dieting, which is defined by having a relaxed attitude towards dieting, was related to lower BMI (Smith, Williamson, et al., 1999) Intuitive eating was also correlated with lower BMI (Tylka & Wilcox, 2006; Hawks, Madanat, et al., 2005). However, in a study conducted on overweight patients with binge eating disorder, emotional overeating was not related to BMI (Masheb, & Grilo, 2006). In Lebanon, no studies so far were conducted to reveal the relation between intuitive eating and BMI. It's important to study this relationship in order to ensure that intuitive eating is actually a window to improve the BMIs of overweight Lebanese people.

Gender Differences

Members of the different sex have different set of standards; women in general are much more concerned about being thin than men. Studies suggest that women are more likely to be affected by society's pressures to be thin, and are more likely to develop problems with their physical appearance, weight, and self-esteem. In a study done on

patients with binge eating disorder, women reported higher body image dissatisfaction than men (Grilo, & Masheb, 2005). On the other hand, a number of recent studies have revealed that even males are starting to display body dissatisfaction (Kaminski, Chapman, et al., 2005; Martins, Tiggemann, & Kirkbride, 2007).

Differences between males and females regarding appearance and body dissatisfaction most probably affect the dieting habits of both genders in different ways. Multiple studies have shown that there are distinct gender differences in disordered eating (Meyer & Waller, 1998; Murnen, Smolak, 1997; Tata, Fox, & Cooper, 2001) According to the Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision (DSM-IV-TR), women outnumber men 10 to 1 in the prevalence of eating disorders (APA, 2000). Not only that, research comparing the levels of men and women's eating disorders' symptoms found that women's levels were much higher than men's (Tata et al., 2001; Meyer & Waller, 1998). Another major gender difference found in research worth noting is how men and women in intimate relationships differ on how they react when it comes to dieting; men who were less satisfied with their relationships had female partners who dieted more and were less satisfied with their bodies. In contrast, men dieted more when their female partners had higher self-esteem (Boyes, Latner, & Fletcher, 2007).

As for emotional eating, a study on overweight patients with binge eating disorder found that emotional overeating was not related to gender (Masheb, & Grilo, 2006). On the other hand, there are distinct gender differences in intuitive eating; men are more of intuitive eaters than women and are more likely to eat for physical rather than emotional reasons (Van Diest & Tylka, 2007). However, no studies have been conducted examining

this gender difference in Lebanon. In the Lebanese culture, eating in response to situational factors is common in both men and women because food is part of the culture and overeating for non-physiological factors is as common as the Cedars. In fact, if you have guests visiting you for example, it's considered impolite not to have some sort of food, or sweet to offer. It's even considered more impolite to actually refuse the hospitality of someone and decline the dessert they're offering! In Europe, if you say "No thanks" when someone offers you a pie, they don't insist, but in Lebanon, they keep insisting, over and over, until they make you taste it, and if you like, they may even pack a Tupperware for you to take home. This is Lebanon, the land where food is symbol of hospitality, pleasure, celebration, care and good feelings. Because eating according to non-biological needs is a cultural thing, it's expected that no gender difference will be found concerning intuitive eating.

Intuitive Eating and Binge Eating Disorder

The most common eating disorder, Binge Eating disorder, BED, is characterized by eating uncontrollably and quickly, large quantities of food even if not hungry (DSM-IV-TR). Binge eating results in feelings of shame, guilt and self-disgust. Research has come a long way regarding BED and resulted in many interesting findings. A large percentage of people with binge eating disorder are also diagnosed with depression. (Marcus, Wing, et al., 1990). Another study found that obese women with BED have lower satisfaction with life and significantly higher levels of depression (Dominy, Johnson & Koch, 2000). The causes for BED are still confusing but studies found some risk factors, including perceived stress (Yacono Freeman & Gil, 2004), and emotional affect (Masheb, Grilo, 2006). Dieting is also considered a risk factor for binge eating;

according to many researches, trying to lose weight may aggravate binge eating; extreme levels of dietary restraint triggers binge episodes, whether it's a dietary restriction like very low caloric diets or maladaptive thinking patterns like the all-or-nothing type of thinking. But it's still not clear whether the dieting behavior precedes or follows binge eating disorder (Mussell, Mitchell, et al., 1995). Strict dieters deprive themselves from food which ultimately leads to binge eating, because they get used to ignoring hunger cues and end up hungry all the time. Keeping that in mind, intuitive eating can be the answer to treat binge eating, suggesting new horizons for treatment.

In light of the review of literature discussed above, the thesis will test the following hypotheses:

1. There will be a negative correlation between relationship dissatisfaction and intuitive eating; (individuals who are dissatisfied in their relationship score lower on the Intuitive Eating Scale.)
2. There will be a negative correlation between body dissatisfaction and intuitive eating; (individuals who are dissatisfied with their body will score lower on the Intuitive Eating Scale.)
3. There will be a positive correlation between Self-esteem ando Intuitive Eating; (individuals who score high on the Self-Esteem scale eat in response to physiological rather than psychological hunger.)
4. There will be a negative correlation between Body Mass Index and Intuitive eating; (the higher an individual's body mass index, the less of an intuitive eater he is.)
5. There will be no gender difference in intuitive eating.

CHAPTER 3

Method

After hypothesizing that individuals who score higher on the Intuitive Eating Scale would be more satisfied in their relationship, score lower on body dissatisfaction and higher on self-esteem, would have lower Body Mass Index, and that no gender differences are predicted in intuitive eating, the following chapter discussed the methods that were used in carrying out the study.

The General Perspective

The study being quantitative in nature, measured the different scoring of the participants on four scales: (1) the Intuitive Eating Scale (IES) and (2) the Rosenberg Self Esteem scale (RSE), the Body Dissatisfaction (BD) subscale from the Eating Disorder Inventory-2 (EDI-2), and the Marital Taxon Self-report Measure (MTSM). All four scales were objective; the first three were in a Likert scale format, as for the MTSM, it was in a true-false format. The test variables were as follows: The Independent Variables consisted of the participants' scores on IES, the participants' relationship status, and the participants' sex (i.e. male or female); whereas the Dependent Variables were the scores obtained on RSE, BD, and MTSM, and the participant's BMI.

The Research Context

Students from six different university campuses in Lebanon took part in the study: AUB (American University of Beirut) located in Ras Beirut, LAU (Lebanese American University) located in Qoreitem, Beirut, NDU (Notre Dame de Louaizy University) located in Zouk Mosbeh, Kerserwan, USEK (University Saint Esprit Kaslik) located in

Kaslik, Mount Lebanon, AUST (American University of Science and Technology) located in Ashrafieh, Beirut, and HU (Haigazian University) located in Kantari, Beirut.

Participants

Originally, 140 questionnaires were submitted; however, 8 participants were dropped from the study because their questionnaire was incomplete (i.e. they missed one item) and so their answers were not accounted in the study. Therefore, the total number of participants that took part in the study was 132. Out of the 132 participants, males comprised of 49% of the sample (N=65) and females comprising 51% of the participants (N=67). Participants' ages ranged from 18-30 plus. Participants' height ranged from 1.49-1.95 meters (M = 1.72, SD = 0.11), their weight ranged from 40-135 kilos (M = 70.14, SD = 16.2). Body Mass Index of participants ranged from 15.63-46.71 kg/m^2 (M = 23.54, SD = 4.42). Participants came from diverse religious background. The majority of the participants were satisfied with their weight (53%), and half have tried dieting before (50%). As for strict dieting, only 27% have followed it at least once in their life. Most participants reported they did NOT exercise (58%) These data were obtained from the demographic data sheet which consisted of the first part of the survey presented in Appendix.

Materials

The questionnaire consisted of demographic questions and four scales. A pilot study was conducted on 39 participants randomly selected in order to test the questionnaire before commencing its usage with a larger number of subjects. The four instruments used in the questionnaire were the Intuitive Eating Scale (IES) developed by Tylka (2006), the Rosenberg Self Esteem Scale (RSE) developed by Rosenberg (1965),

the Body Dissatisfaction (BD), a subscale from the Eating Disorder Inventory-2 (EDI-2) developed by Graner (1991), and the Marital Taxon Self-report Measure (MTSM) developed by Whisman, Synder and Beach (2009).

The Intuitive Eating Scale (IES). The IES by Tylka, (2006) is a 21 item scale measuring of the construct of intuitive eating. It consists of three subscales; the first subscale represents 'unconditional permission to eat.' It contains 9 items such as "If I am craving a certain food, I allow myself to have it." The second subscale measures 'eating for physical rather than emotional reasons' and contains 6 items like "I find myself eating when I am bored, even when I'm not physically hungry." The third subscale measures 'reliance on internal hunger and satiety cues to govern eating' and contains 6 items such as "I trust my body to tell me how much to eat." Items were rated on a 5-point scale with 1 being 'Strongly Disagree,' and 5 being 'Strongly Agree.' Reverse scored items were items 1, 3, 5, 6, 9, 10, 14, 16, 17, 18, 19, 20, and 21. All items were averaged and the highest scores on the entire scale indicated high levels of intuitive eating ability. The total Intuitive Eating Scale demonstrated acceptable internal consistency reliability with Cronbach's alpha coefficient of .89 (Tylka, 2006). As for the subscales, the Unconditional Permission to Eat subscale demonstrated Cronbach's $\alpha = .89$, the Eating for Physical Rather than Emotional Reasons subscale demonstrated Cronbach's $\alpha = .86$ and the Reliance on Internal Hunger and Satiety Cues to Govern Eating subscale demonstrated Cronbach's $\alpha = .72$.

The Rosenberg Self-Esteem Scale (RSE). The RSE by Rosenberg (1965) is a 10 item scale, with items such as, 'I feel that I have a number of good qualities.' Items were rated on a 3-point scale with 0 being 'Strongly Disagree', and 3 being 'Strongly Agree.'

Reverse scored items were items 3, 5, 8, 9 and 10. All items were averaged with higher scores indicating high levels of self-esteem. Scores on the RSE have demonstrated good internal consistency reliability (Cronbach's $\alpha = .89$), test-retest reliability ($r = .85$), and moderate convergent validity with other measures of self-esteem (Robinson & Shaver, 1973).

The Body Dissatisfaction Subscale (BD). Body dissatisfaction was measured using the Body Dissatisfaction Subscale of the Eating Disorder Inventory-2 (BD, EDI-2; Garner, 1991). The 9 item subscale of the EDI-2 measures how much an individual accepts his own body and body parts. It includes items such as 'I think that my stomach is too big' and 'I think that my thighs are too large.' Items are ranked on a 6-point scale but scoring was made as such; the most extreme body dissatisfied response ('Always' or 'Never' depending on the keyed direction) earned a score of 3; the immediately adjacent response 2, the next response 1 and the three choices opposite to the most dissatisfied response receiving no score (0). The negatively keyed items are: 3, 4, 5, 7, and 9. All items scores are averaged, high scores indicating high levels of body dissatisfaction. Test-retest reliability of the scale over three weeks scored .97 (Wear & Pratz, 1987). A study on college women have yielded Cronbach's alphas of .91 (Brookings & Wilson, 1994).

The Marital Taxon Self-report Measure (MTSM). Developed by Whisman, Synder and Beach (2009), this brief screening measure consisted of ten true or false statements which detected the relationship discord taxon. The measure was created based on the Marital Satisfaction Inventory—Revised (MSI–R; Snyder, 1997) which consists of 150 true–false items assessing the nature and extent of conflict within a marriage or close romantic relationship. Items were rated either 0 or 1. Reverse item scores are 1, 2, 5, 6,

and 7. All items were averaged and higher scores indicated less relationship satisfaction. Coefficient alpha for the10-item scale was .82 for wives and .81 for husbands (Whisman, Synder and Beach, 2009). The test–retest reliability over 6-weeks indicated a good temporal stability of the taxon classification.

Procedure

The surveys were distributed to students on the six different campuses AUB (American University of Beirut), LAU (Lebanese American University), NDU (Notre Dame de Louaizy University), USEK (University Saint Esprit Kaslik), AUST (American University of Science and Technology) and HU (Haigazian University). Questionnaires were distributed on campuses at random, during class hours, at different locations. Those who agreed to participate in the survey filled it out by paper-pencil. Participants were informed about their rights in regards to the anonymity of the survey and confidentiality of their answers, and that completing the survey was optional. The researcher was available to answer to any inquiries the participants' had, and those who agreed to take part were informed of the purpose of the study after submitting out the questionnaires.

Data Analysis

The data obtained from the surveys was scored and analyzed using the Statistical Program for Social Sciences (SPSS). The statistical methods that were used to interpret the results were the following: (1) analyzing the reliability of the IES, RSE, BD, MTSM scales and comparing it to the reliabilities cited by the developers; (2) calculating the Pearson Product-Moment Correlation Coefficient to verify the relationship between intuitive eating and self-esteem, relationship satisfaction, body dissatisfaction and BMI; (3) comparing two groups(males and females) by conducting an independent t-test to

investigate whether gender has a significant effect on intuitive eating and on body dissatisfaction.

CHAPTER 4

Results

In the first chapter, it was hypothesized there is a negative correlation between IES scores and MTSM, indicating that individuals who are satisfied in their relationship eat more intuitively. In addition, it was also predicted that BD scores are negatively correlated to intuitive eating. RSE scores were hypothesized to positively correlate with IES scores, indicating that individuals with high self esteem eat more intuitively. Moreover, it was speculated that IES scores and high body mass index are negatively correlated which means the higher an individual's body mass index, the less his intuitive eating. Finally, it was predicted that no difference will be found between males' and females' scores on IES.

Therefore, as part of the analysis of the results, the following was analyzed in regards to the study: (1) the reliability of the IES, RSE, BD and MTSM scales were tested; (2) the Pearson Product-Moment Correlation Coefficient was calculated to determine the degree of relationship between intuitive eating and relationship satisfaction, self-esteem, body dissatisfaction and BMI; and (3) to test whether there is a significant difference between genders on the IES and BD scores, an independent t-test was conducted.

Reliability of IES, RSE, BD, and MTSM

The IES, RSE, BD and MTSM reliabilities were assessed. Participants' scores led to the following results in regards to the scales' reliability Cronbach alpha (see table 1)

Table 1: Cronbach alpha for IES, RSE, BD, and MTSM

	Cronbach alpha (*r*) of previous studies:	Cronbach alpha (*r*) of present study
IES (21 items)	.89	.80
- Unconditional permission to eat (9 items)	.89	.81
- Eating for physical rather than emotional reasons (6 items)	.86	.81
- Reliance on internal hunger and satiety cues to govern eating (6 items)	.72	.64
RSE (10 items)	.89	.83
BD (9 items)	.91	.79
MTSM (10 items)	.81 - .82	.82

In this study, the IES was shown to be a reliable scale. The Cronbach's coefficient alpha for the total Intuitive Eating Scale was .80, as for the subscales, the Unconditional Permission to Eat subscale, the Eating for Physical Rather than Emotional Reasons subscale, and the Reliance on Internal Hunger and Satiety Cues to Govern Eating subscale demonstrated Cronbach's α of .81, .81, and .64 respectively. The study showed the reliability of the subscales to be slightly lower than the ones reported by the developers (Tylka, 2006). In the present study, the third subscale's reliability was .64 which is below the desirable value but even in the original study, its reliability was lower than the other two subscales.

Overall, the RSE scale demonstrated good internal reliability (Cronbach's α = .83) but less than in the previous study by Robinson and Shaver (1973) who reported a reliability coefficient of .89.

On a whole, the reliability of the BD scale is above average (Cronbach's $\alpha = .79$); however, the reliability coefficient is less than the one reported by Brookings and Wilson (1994) who reported Cronbach's $\alpha = .97$.

The present study showed a Cronbach's alpha of .82 for the MTSM measure, the same value as reported by the previous study conducted by Whisman, Synder and Beach (2009) who reported a coefficient alpha of .82 for females and .81 for males.

Correlations

1. The first hypothesis of this thesis stated that there will be a negative correlation between intuitive eating and relationship dissatisfaction.

2. The second hypothesis stated that there will be a negative correlation between intuitive eating and body dissatisfaction.

3. The third hypothesis stated that there will be a positive correlation between intuitive eating and self-esteem.

4. The fourth hypothesis stated that there will be a negative correlation between intuitive eating and Body Mass Index.

In order to investigate hypothesis number one, two, three and four, and determine the degree of relationship between intuitive eating and relationship satisfaction, self-esteem, body dissatisfaction and BMI, the Pearson Product-Moment Correlation Coefficient was calculated (see table 2)

Table 2: Pearson Correlation between IES, RSE, BD, MTSM and BMI

Measure	IES	IES_SUB1	IES_SUB2	IES_SUB3	RSE	BD	BMI
IES		.739**	.739**	.561**	.185*	-.446**	-.194*
MTSM	-.283*						
RSE			.182*	.233**			
BD		-.202*	-.397**	-.404**	-.327**		.366**
BMI				-.263**			

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The IES scores of participants ranged from 43 to 92, with a mean score of 68.53 and a standard deviation of 11.03. The scores of participants on MTSM ranged from 0 to 10 with a mean score of 2.82 and a standard deviation of 2.76. The RSE scores of participants ranged from 7 to 30, with a mean score of 21.06 and a standard deviation of 4.96. As for the BD scores, it ranged from 0 to 27, with a mean score of 7 and a standard deviation of 5.75. Hypothesis 1, 2, 3 and 4 were confirmed. For participants who were married, engaged or in a relationship (N=50), a negative correlation was found between IES and MTSM scores. A negative correlation was also found between intuitive eating and body dissatisfaction. According to the correlation coefficient $r_{(130)} = -.446$, $p < .01$, the correlation was significant at the .01 level (Table 2). BD scores were also negatively correlated with each of the three IES subscales, with coefficient $r_{(130)} = -.202$, $p < .05$ significant at the .05 level, coefficient $r_{(130)} = -.397$, $p < .01$ significant at the .01 level, and coefficient $r_{(130)} = -.404$, $p < .01$ significant at the .01 level, for subscales 1, 2, and 3 respectively (Table 2). According to the correlation coefficient $r_{(48)} = -.283$, $p < .05$, the

correlation was significant at the .05 level (Table 2). According to participants' scores, a positive correlation was found between intuitive eating and self-esteem, with a correlation coefficient $r_{(48)} = .185$, $p < .05$, significant at the .05 level. SE scores were also positively correlated with IES subscales 2 and 3, with coefficient $r_{(130)} = -.182$, $p < .05$ significant at the .05 level for subscale 2, and coefficient $r_{(130)} = .233$, $p < .01$ significant at the .01 level for subscale 3 (Table 2). As for the correlation between intuitive eating and BMI, it was significant at .05 level with a coefficient $r_{(130)} = -.194$, $p < .05$. A negative correlation was also found between IES subscale 3 and Body Mass Index. According to the correlation coefficient $r_{(130)} = -.263$, $p < .01$, the correlation was significant at the .01 level (Table 2).

Effects of Gender

5. The fifth hypothesis stated that no significant difference in IES scores will be found between males and females.

An independent-samples t-test was conducted to compare mean scores of IES and its subscales in the independent groups; males and females. Results are presented in Table 3.

Table 3: Gender Difference in Means on IES

	Gender	N	Mean	Std. Deviation	Std. Error Mean
IES	Male	65	71.20	10.82	1.34
	Female	67	65.94	10.67	1.30
IES_SUB1	Male	65	30.12	6.68	.83
	Female	67	28.56	7.38	.90
IES_SUB2	Male	65	20.09	4.65	.58
	Female	67	16.85	5.23	.64
IES_SUB3	Male	65	20.98	2.99	.37
	Female	67	20.52	3.97	.48

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
IES	Equal variances assumed	.073	.787	2.811	130	.006	5.25970	1.87124	1.55768	8.96173
	Equal variances not assumed			2.810	129.746	.006	5.25970	1.87163	1.55683	8.96257
IES_SUB1	Equal variances assumed	.030	.862	1.269	130	.207	1.55591	1.22607	-.86972	3.98155
	Equal variances not assumed			1.271	129.377	.206	1.55591	1.22420	-.86614	3.97796
IES_SUB2	Equal variances assumed	.933	.336	3.758	130	.000	3.24156	.86268	1.53485	4.94827
	Equal variances not assumed			3.764	129.036	.000	3.24156	.86114	1.53777	4.94535
IES_SUB3	Equal variances assumed	3.717	.056	.754	130	.452	.46223	.61300	-.75053	1.67498
	Equal variances not assumed			.757	122.617	.450	.46223	.61044	-.74613	1.67059

The score difference for IES was significant; therefore, Hypothesis 5 was not confirmed. Results show that males (M=71.20, SD=10.82) scored significantly higher on IES than females (M=65.94, SD=10.67) conditions; t (130) = 2.81, p = 0.006 <.05. As for the subscales of IES, gender difference was only significant with subscale 2.

Further Investigations

Although not part of the hypothesis, further research was conducted regarding gender differences and as well as on the additional items in the demographics sheet to find other group differences regarding intuitive eating, body dissatisfaction, self-esteem and BMI.

Results showed two interesting correlations regarding body dissatisfaction; BD was positively correlated with BMI, coefficient $r_{(130)} = .366$, $p < .01$ significant at the .01 level (Table 2) and negatively correlated with SE, coefficient $r_{(130)} = -.327$, $p < .01$ significant at the .01 level (Table 2).

Regarding gender, results showed two significant differences; Males (M=5.97, SD=5.44) scored significantly lower than females (M=8.00, SD=5.91) on BD, conditions; t(130) = - 2.05, p = 0.042 <.05, and males (M=24.97, SD=4.20) had significantly higher BMI scores than females (M=22.16, SD=4.22) conditions; t(130) = 3.83, p = 0.00 <.05 (see Table 4).

Table 4: Gender Difference in Means on BD and BMI

	Gender	N	Mean	Std. Deviation	Std. Error Mean
BD	Male	65	5.97	5.44	.67
	Female	67	8.00	5.91	.72
BMI	Male	65	24.97	4.20	.52
	Female	67	22.16	4.22	.51

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
BD	Equal variances assumed	.123	.726	-2.052	130	.042	-2.03077	.98956	-3.98850	-.07304
	Equal variances not assumed			-2.055	129.657	.042	-2.03077	.98832	-3.98610	-.07544
BMI	Equal variances assumed	.429	.514	3.828	130	.000	2.80542	.73295	1.35537	4.25547
	Equal variances not assumed			3.828	129.903	.000	2.80542	.73291	1.35543	4.25541

The thesis questionnaire had additional items in the demographics sheet that were in a yes-no format and that asked questions regarding habits related to dieting: 'Are you satisfied with your weight?', 'Have you ever tried to go on a diet?', 'Have you ever followed a STRICT diet?' and 'Do you exercise regularly?' The tables below summarize the findings revealed (see tables 5, 6 and 7).

Table 5: Difference in Means for Strict Dieters

	Strict Dieting	N	Mean	Std. Deviation	Std. Error Mean
IES	Yes	36	63.83	11.51	1.92
	No	96	70.29	10.36	1.06
IES_SUB1	Yes	36	25.64	7.10	1.18
	No	96	30.71	6.56	.67
IES_SUB2	Yes	36	17.86	6.17	1.03
	No	96	18.66	4.80	.49
IES_SUB3	Yes	36	20.33	4.11	.68
	No	96	20.91	3.27	.33
BD	Yes	36	8.92	5.86	.98
	No	96	6.28	5.57	.57
BMI	Yes	36	23.99	3.36	.56
	No	96	23.37	4.77	.49

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
IES	Equal variances assumed	.383	.537	-3.093	130	.002	-6.45833	2.08799	-10.58917	-2.32750
	Equal variances not assumed			-2.948	57.552	.005	-6.45833	2.19061	-10.84405	-2.07262
IES_SUB1	Equal variances assumed	.064	.800	-3.874	130	.000	-5.07986	1.31120	-7.67392	-2.48580
	Equal variances not assumed			-3.735	58.733	.000	-5.07986	1.36007	-7.80161	-2.35811
IES_SUB2	Equal variances assumed	4.803	.030	-.792	130	.430	-.80556	1.01719	-2.81794	1.20683
	Equal variances not assumed			-.707	51.714	.483	-.80556	1.13905	-3.09154	1.48042
IES_SUB3	Equal variances assumed	3.759	.055	-.833	130	.406	-.57292	.68780	-1.93365	.78781
	Equal variances not assumed			-.751	52.517	.456	-.57292	.76255	-2.10273	.95689
BD	Equal variances assumed	1.016	.315	2.386	130	.018	2.63542	1.10476	.44977	4.82106
	Equal variances not assumed			2.332	60.265	.023	2.63542	1.12996	.37536	4.89547
BMI	Equal variances assumed	2.368	.126	.716	130	.475	.62036	.86619	-1.09330	2.33401
	Equal variances not assumed			.836	89.112	.405	.62036	.74169	-.85333	2.09405

Table 6: Difference in Means for Dieters

	Diet	N	Mean	Std. Deviation	Std. Error Mean
IES	Yes	66	64.59	10.71	1.32
	No	66	72.47	9.95	1.22
IES_SUB1	Yes	66	27.07	6.97	.86
	No	66	31.59	6.44	.79
IES_SUB2	Yes	66	17.33	5.27	.65
	No	66	19.56	4.91	.60
IES_SUB3	Yes	66	20.18	3.98	.49
	No	66	21.32	2.90	.36
BD	Yes	66	9.51	6.01	.74
	No	66	4.48	4.19	.51
BMI	Yes	66	24.39	4.14	.51
	No	66	22.69	4.57	.56

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
IES	Equal variances assumed	.019	.890	-4.380	130	.000	-7.87879	1.79889	-11.43767	-4.31991
	Equal variances not assumed			-4.380	129.300	.000	-7.87879	1.79889	-11.43785	-4.31973
IES_SUB1	Equal variances assumed	.442	.507	-3.865	130	.000	-4.51515	1.16821	-6.82631	-2.20400
	Equal variances not assumed			-3.865	129.193	.000	-4.51515	1.16821	-6.82644	-2.20386
IES_SUB2	Equal variances assumed	.069	.794	-2.511	130	.013	-2.22727	.88696	-3.98201	-.47253
	Equal variances not assumed			-2.511	129.376	.013	-2.22727	.88696	-3.98209	-.47245
IES_SUB3	Equal variances assumed	8.555	.004	-1.875	130	.063	-1.13636	.60613	-2.33553	.06280
	Equal variances not assumed			-1.875	118.987	.063	-1.13636	.60613	-2.33657	.06384
BD	Equal variances assumed	9.785	.002	5.568	130	.000	5.03030	.90337	3.24309	6.81751
	Equal variances not assumed			5.568	115.923	.000	5.03030	.90337	3.24105	6.81955
BMI	Equal variances assumed	.082	.776	2.239	130	.027	1.69866	.75857	.19792	3.19939
	Equal variances not assumed			2.239	128.758	.027	1.69866	.75857	.19779	3.19952

The results revealed those who had tried strict dieting scored significantly lower on IES (M=63.83, SD=11.51) than those who never tried strict dieting before (M=70.29, SD=10.36) (Table 5). Furthermore, those who had tried dieting before, scored significantly lower on IES (M=64.59, SD=10.71) than those who never tried dieting before (M=72.47, SD=9.95) (Table 6). Strict dieters scored significantly higher on BD (M=8.92, SD=5.86) than the rest (M=6.28, SD=5.57). Dieters as well, scored significantly higher on BD (M=9.51, SD=6.01) than the rest (M=4.48, SD=4.19). Interestingly, strict dieters did not have significantly higher BMI than the rest, whereas dieters scored significantly higher on BMI scores (M=24.39, SD=4.14) than non-dieters (M=22.69, SD=4.57) (Table 5 & 6).

Table 7: Difference in Means according to Weight Satisfaction

Satisfied W		N	Mean	Std. Deviation	Std. Error Mean
IES	Yes	70	72.13	9.65	1.15
	No	62	64.47	11.14	1.41
BD	Yes	70	3.93	4.01	.48
	No	62	10.47	5.46	.69
BMI	Yes	70	22.17	2.85	.34
	No	62	25.09	5.31	.67

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
IES	Equal variances assumed	1.475	.227	4.233	130	.000	7.66083	1.80990	4.08016	11.24150
	Equal variances not assumed			4.196	121.557	.000	7.66083	1.82574	4.04647	11.27519
BD	Equal variances assumed	5.650	.019	-7.898	130	.000	-6.53917	.82796	-8.17719	-4.90115
	Equal variances not assumed			-7.755	110.859	.000	-6.53917	.84322	-8.21010	-4.86825
BMI	Equal variances assumed	11.019	.001	-3.984	130	.000	-2.91274	.73114	-4.35921	-1.46628
	Equal variances not assumed			-3.852	90.873	.000	-2.91274	.75625	-4.41497	-1.41051

In addition, participants who were satisfied with their weight, scored significantly higher on IES(M=72.13, SD=9.65) than those who were not satisfied with their weight (M=64.47 SD=11.14), lower on body dissatisfaction (M=3.93, SD=4.01) than those who were not satisfied with their weight (M=10.47, SD=5.46), and had lower BMI (M=22.17, SD=2.85) than those who were not satisfied with their weight (M=25.09, SD=5.31) (Table 7).

Summary of Results

Based on the results, hypotheses 1, 2, 3, and 4 were confirmed: A negative correlation was found between IES and MTSM scores, indicating that those who are satisfied in their relationship eat more intuitively. A negative correlation was found between intuitive eating and body dissatisfaction, suggesting that, individuals who are dissatisfied with their bodies, are less likely to eat intuitively. A positive correlation was also established between intuitive eating and self-esteem, indicating that those with high self-esteem have more intuitive eating. Finally, a negative correlation was found between intuitive eating and Body Mass Index, meaning that those who eat intuitively have lower BMI scores

(Table 2). Taking into account gender, the score difference for IES were significant, unlike the predicted hypothesis 5. Males scored significantly higher on IES than females.

CHAPTER 5

Summary and Discussion

The aim of this study was to investigate associations between intuitive eating and four factors; self esteem, body dissatisfaction, body mass index and relationship satisfaction. Additionally, the study wanted to examine gender difference in intuitive eating. The main purpose of this final chapter is to combine the findings into one complete comprehensive piece and discuss their overall implications. The findings of this study are mostly in agreement with the results cited in previous studies concerning the similar topic of investigation.

Overview of the Results and Meaning of the Study

As expected, intuitive eating was found to correlate with relationship dissatisfaction. Those individuals who have interpersonal problems with their partners are more likely to eat out of emotions without listening to their bodies' natural hunger and satiety signals. This finding was in accord with the literature review; women who face marital discord have more unhealthy dieting behaviors (Markey, Markey, & Birch, 2001), and as Humphrey's (1989) study suggested: disordered eating patterns among female adolescents was promoted by discordance in interpersonal relationships. It's important to remember that this is an association and not causation hence this relation can go the opposite way: individuals who eat more intuitively are more satisfied in their relationships. It could also be that a third factor, like high self-esteem, is the reason for both intuitive eating and relationship satisfaction. Additional research should be done to establish a causational relationship.

These results are worth a million in the weight loss business; if only dietitians and health promoters shifted their attention to the importance of psychological well-being of an individual, their job will be much more helpful and effective. Instead of staying focused on explaining to weight loss clients what to eat and how much to eat, assessing their relationship satisfaction and if they need help, referring them to psychologists, will tackle the problem from both ends. Because no matter how much one controls his eating, if the problem lies within, it will surface once again.

The reports by Tylka and Wilcox (2006) on the relationship between intuitive eating and body dissatisfaction were similar to the ones discovered in this study; a negative correlation was found regardless the cultural differences between the West and the Middle East in terms of body image, indicating that individuals who are dissatisfied with their body are more likely to eat in response to emotional factors. The opposite also being true; those who eat more intuitively are more satisfied with their bodies. This finding reveals that after all, body dissatisfaction is a concern in Lebanon which affects intuitive eating; although traditionally the Lebanese appreciate full figures in women and a little belly fat for men, the West is having great impact on us, and the media's display of perfectly shaped bodies is probably becoming idolized by the Lebanese. These unattainable standards make people put rigid diet rules on themselves, which eventually fail and affect their eating behavior, making them more prone to binge and eat for reasons not related to hunger.

As predicted in the hypothesis and reported in previous studies conducted by Tylka and Wilcox (2006), self-esteem was found to positively correlate to Intuitive Eating, indicating that even in Lebanon, individuals with high self-esteem are more likely

eat in response to physiological rather than psychological hunger. According to Mirza, Davis, & Yanovski's reseacrh (2008) and to the present study as well, self-esteem and body dissatisfaction are significantly related to each other; the higher the body satisfaction, the lower one's self-esteem. Keeping that in mind, it's highly expected that self-esteem is also correlated to intuitive eating, whether it's indirectly, through body dissatisfaction, or, directly, knowing the impact of self-esteem on psychological wellbeing. This finding is yet another window to help treat weight loss clients better; working on people's self-esteem can assist them become more of intuitive eaters, and help them stop overeating for emotional reasons.

According to the results of the study, a negative correlation was established between Body Mass Index and Intuitive eating, signifying that individuals with higher body mass index eat less intuitively. This is clear evidence that those who ignore biological eating cues and instead eat in response to external factors, tend to overeat and gain weight. These results were expected based on previous studies, such as Davis, Levitan, et al. study (2008) conducted on obese adults which has shown that obese adults are less likely to eat in response to physiological needs, also Tylka and Wilcox (2006) findings that confirmed a significant positive correlation between intuitive eating and lower BMI, and as well as Van Diest (2007) results which showed that BMI negatively influence intuitive eating. This proposes an attention-grabbing implication which suggests that intuitive eating model can be used as a weight loss program in Lebanon; giving weight loss patients a training in mindful eating, and teaching them how to identify biological hunger signals, and how to become intuitive eaters, can help them lose weight.

The last result found in this study brings attention to the fact that males and females score differently when it comes to intuitive eating. This finding was inconsistent with the hypothesis which suggested that, unlike previous reported studies done by Van Diest (2007) which found that men are more of intuitive eaters than women, in Lebanon no gender difference will be found. It was assumed that culturally, both Lebanese males and females eat for situational reasons rather than physical. Results can be explained by stating that even though in Lebanon, everyone is tempted to eat past satiety and use food as a leisure, there is still difference between men and women, in terms of emotional eating. This finding can help both dietitians and psychologists to recognize the difference between men and women regarding intuitive eating, in order to know how to treat each person and what problems to tackle for the therapy to turn out to be more successful.

In this study, body dissatisfaction was positively correlated with BMI suggesting that individuals who are fat are more dissatisfied with their bodies. This finding wasn't new in research; as mentioned earlier in the literature many studies have already found similar results, like the study on young students which reported that body dissatisfaction was associated with higher BMI scores (Mirza, Davis, & Yanovski, 2008). It is no surprise that individuals, who eat less intuitively, overeat, gain weight, and end up being dissatisfied with their bodies. Also, a significant difference was found between males and females regarding body dissatisfaction; males were more satisfied with their bodies than females. This difference can be due to cultural factors; in our society, it seems that the pressure to be thin is solely on females; women attract men with their physical appearance and skinny legs, while men attract women with their fancy cars and fat wallets. Interesting results were revealed regarding strict dieting; those who tried strict

dieting scored significantly lower on intuitive eating and on the first construct of intuitive eating, unconditional permission to eat. It's no surprise that those who tried strict dieting do not give themselves the right to eat unconditionally. This finding is in accord with the literature review; following strict diets can teach people to ignore internal hunger and satiety cues over time (Mussell, Mitchell, et al., 1995). Strict dieters were also found to score significantly lower on body dissatisfaction than non dieters. However, it was pretty intriguing to find that normal dieters scored significantly higher on BMI than non-dieters, as in the findings mentioned in the literature review which stated that people with lower BMI scores have fewer dieting behavior, whereas strict dieters did not have significantly higher BMI scores than non dieters. It could be that those who follow strict diets are the ones who want to reach perfect bodies, and even if they have normal BMI they still want to lose weight, but because the body has a defense mechanism that stops it from losing weight, they follow very strict diets with restrictive caloric intake in order to see results. This study was in agreement with Malinauskas, Raedeke, et al study which confirmed that 83% of college female students reported dieting regardless their weight status, but in this case it wasn't specified what kind of dieting. From my experience at the diet clinic, I have come across many patients, specially females, who visit my clinic because they want to lose those extra 3 kg they have on their hips, thinking that only if they lose those few extra kg, they can be finally happy. But sadly how little do they know!

Limitations of the Study and Future Recommendations

The major limitation of the study was the self-report mode of data collection because it is susceptible to wrong responding. The survey has high susceptibility to social desirability bias where respondents tend to answer questions in a manner that will

be viewed favorably by others, in this case the researchers. Participants could have scored higher on self-esteem or on relationship satisfaction because they want to present themselves or their relationship more positively when in fact it is not. Some may also have under-reported body dissatisfaction, or even their weight. Social desirability bias and positive self-presentation pose a serious problem and could have interfered with the interpretation of results. To reduce the chances of having social desirability bias and positive self-presentation, in future studies, it would be useful to collect the questionnaires in ballot boxes as to further guarantee anonymity and the impossibility to identify the subjects who filled in the questionnaires. This way the subject does not feel directly and personally involved in the answers he or she is going to give.

Using a questionnaire written in English language could've been yet another limitation; even though most university students read and understand the English language quiet well, they may have had difficulties understanding some of the questions or key terms, after all, this is Lebanon, not the US. In future studies, it would be more correct to translate the questionnaire in Arabic, and test-retest its reliability.

Another limitation could be the self-reported Body Mass Index (BMI); there could have been a significant difference between BMI and self-reported BMI, which could have led to discrepancies in the final results. In future studies, it would be better for researchers to measure the participants' exact heights and weights, in order to get an accurate BMI score.

In future studies, it would also be useful to determine if intuitive eaters have healthier diets than the general population, in terms of quality of food, because even

though we found a significant correlation between intuitive eating and BMI, we cannot ensure that intuitive eaters are healthier than the rest.

Observing the results, it is clear that, even though the hypotheses were confirmed and the correlations were significant, the values are weak. This suggests that there are many other correlates for intuitive eating which are not yet exposed. Future studies should focus on finding other and hopefully stronger correlates for intuitive eating.

It is true that a relationship was found between intuitive eating and relationship dissatisfaction, but in future studies it is important to find out what part of the relationship is dissatisfying, by including different and more specific relationship satisfaction scales. This will help in the psychotherapy, knowing what part of the relationship is the problem affecting ones eating behavior.

Cronbach's coefficient alpha for the Intuitive Eating subscale of Reliance on Internal Hunger and Satiety cues to govern eating was reported at 0.64 for this study. Unfortunately, it's lower than acceptable Cronbach's alphas of 0.70 or higher. This reported alpha suggests a lower level of internal consistency reliability for this measure in this study.

The sample size of the study could have been larger; however, in Lebanon students are less enthusiastic about wanting to participate in any sort of research specially if the questionnaire is more than two pages. 8 questionnaires out of 140 were incomplete because obviously somewhere between the pages, the participant lost interest and stopped answering. Also, since participants were randomly selected, we couldn't control selecting participants who were 'single,' or 'in a relationship' which is why the final number of 'singles' and of 'in relationship' wasn't evenly distributed. I guess it was also difficult to

select participants who were in a 'long term relationship', probably because currently among students, open relationships and casual sex are much more common than long term relationships, and you can rarely find students who are committed to one person. Better results would've been obtained with a larger sample of participants 'in a relationship.'

Finally, the results of this study cannot be generalized to all individuals of the population. The participants selected for this study are a sample from the population, selected in a given time and place. Moreover, participants were selected from the Beirut region; the results might have been different if the sampling was done in other parts of the country as well, such as the North and the South of Lebanon where the population might hold different values. In the future, having participants from all over the country will make the study more comprehensive.

Importance and Clinical Implications of the Study

If we incorporate these findings together and decide to start a new concept in weight loss, we can create a weight loss intervention that combines: (1) Training patients to eat intuitively, by teaching them skills to identify hunger, and fullness. The goal is to eat when you are hungry but not famished, and to stop eating when you are satisfied but not overly full. Because eating when too hungry may result in overeating, and eating past full indicates psychological eating. (2) Teaching patients new coping skills and adaptive was to effectively manage emotions that lead to overeating. (3) Encouraging body size acceptance, to reduce body dissatisfaction in patients, and offer them counseling to work on building their self-esteem, since we found out in the study that doing so, will improve patient's ability to eat intuitively. (4) Offering interpersonal therapy to fix conflicts in

romantic relationships in order for patients to avoid using food as a substitute for emotional gratification. (5) Stop patients from following very strict diets. They should not restrict what foods to eat in any way; food should not be a source of guilt or deprivation or else more emotional eating can occur.

As mentioned earlier, this study is proof that when dealing with weight loss patients, it's important to treat their distorted eating habits and patterns, and it is also necessary to treat underlying issues of self-esteem and relationship dissatisfaction in order to have a successful treatment in plan. Therefore, this knowledge and information is crucial for psychologists and diet counselors, in order for them to provide better treatment plans for those who have unhealthy relationship with food. The results of this study offers hope for both health professionals and weigh loss patients; it directs to a new dieting concepts, a weight loss program that is one of a kind, and hopefully the answer to all the long-term weight loss programs with limited success.

References

American Psychological Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed., text revision). Washington DC: American Psychiatric Press, Inc.

Annamaria, P., & Alesi, M. (2006). Personal conceptions of intelligence, self-esteem and school achievement in Italian and Portuguese students. *Adolescence*, *41*(164), 615-31.

Attie, I., & Brooks-Gunn, J. (1989). Development of eating problems in adolescent girls: A longitudinal study. *Developmental Psychology, 25,* 70–79.

Bessenoff, G. R. (2006). Can the media affect us? Social comparison, self-discrepancy, and the thin ideal. *Psychology of women quarterly, 30*, 239–251.

Birch, L., L. (1999). Development of food preferences. *Annual Review of Nutrition, 19,* 41-62.

Boyes, A. D., Latner, J. D., & Fletcher, G. J.O. (2007) Male and Female Body Image and Dieting in the Context of Intimate Relationships. *Journal of Family Psychology, 21:4,* 764–768.

Davis, C., Levitan, R. D., Carter, J., Kaplan, A. S., Reid, C., Curtis, C., Patte, K., & Kennedy, J. L. (2008). Personality and Eating Behaviors: A Case–Control Study of Binge Eating Disorder. *International Journal of Eating Disorders 41:3,* 243–250.

Dominy, N. L., Johnson, W. B., & Koch, C. (2000). Perception of parental acceptance in women with BED. *The Journal of Psychology: Interdisciplinary and Applied, 134,* 23-36.

Dunkley, T. L., Wertheim, E. H., & Paxton, S. J. (2001). Examination of a model of multiple sociocultural influences on adolescent girls' body dissatisfaction and dietary restraint. *Adolescence, 36:142,* 265-279.

Edmunds, H., & Hill A. J. (1999). Dieting and family context of eating in young adolescent children. *International Journal of Eating Disorders, 25:4,* 435-664.

Fairburn, C. G., Doll, H. A., Welch, S. L., Hay, P. J., Davies, B. A., & O.Connor, M. E. (1998). Risk factors for binge eating disorder: A community-based, case-control study. *Archives of General Psychiatry, 55,* 425-432.

Fletcher, G. J. O. (2002). The science of intimate relationships. Oxford, England: Blackwell.

Friedman, M. A., Dixon, A. E., Brownell K. D., Whisman M. A., & Wilfey, D. E. (1999). Marital status, marital satisfaction, and body image dissatisfaction. *International Journal of Eating Disorders, 26,* 81-85.

Garner, D. M., Olmstead, M. P. & Polivy, J. (1983) Development and Validation of a Multidimensional Eating Disorder Inventory for Anorexia Nervosa and Bulimia. *International Journal of Eating Disorders, 2,* 15-34.

Grilo, C. M., & Masheb, R. M. (2005) Correlates of Body Image Dissatisfaction in Treatment-Seeking Men and Women with Binge Eating Disorder. *International Journal of Eating Disorder, 38:2*, 162–166.

Grumm, M., Nestler, S., & Von Collani, G. (2009). Changing explicit and implicit attitudes: The case of self-esteem. *Journal of Experimental Social Psychology, 45*(2), 327-35.

Hawks, S., Madanat, H., Hawks, J., & Harris, A. (2005) The Relationship Between Intuitive Eating and Health Indicators Among College Women. *American Journal of Health Education, 36: 6,* 331-336.

Heinberg, L. J., Thompson, J. K. & Stormer S. (1995). Development and validation of the sociocultural attitudes towards appearance questionnaire. *International Journal of Eating Disorders, 17,* 81-89.

Humphrey, L. L. (1989). Observed family interactions among subtypes of eating disorders using structural analysis of social behavior. *Journal of Consulting and Clinical Psychology, 57,* 206-214.

Jones, D. C., Vigfusdottir, T. H. & Lee Y. (2004). Body Image and the Appearance Culture Among Adolescent Girls and Boys: An Examination of Friend Conversations, Peer Criticism, Appearance Magazines, and the Internalization of Appearance Ideals. *Journal of Adolescent Research, 19,* 323.

Kaminski, P.L., Chapman, B.P., Haynes, S.D., & Own, L. (2005). Body image, eating behaviors, and attitudes towards exercise among gay and straight men. *Eating Behaviors, 6,* 179 – 187.

Lee R.D., & Nieman D. C. (1996). Nutritional Assessment. (2nd edition). Mosby, St. Louis.

Leon, G. R., Fulkerson, J. A., Perry, C. L., Keel, P. K., & Klump, K. L. (1999). Three to four year prospective evaluation of personality and behavioral risk factors for later disordered eating in adolescent girls and boys. *Journal of Youth and Adolescence, 28,* 181-196.

Malinauskas, B. M., Raedeke, T. D., Aeby, V. G., Smith, J. L., & Dallas, M. B. (2006). Dieting practices, weight perceptions, and body composition: A comparison of normal weight, overweight, and obese college females. *Nutrition Journal*, 5:11.

Marcus, M. D., Wing, R. R., Ewing, L., Kern, E. Gooding, & W. McDermott, M. (1990). Psychiatric Disorders Among Obese Binge Eaters. *International Journal of Eating Disorders, 9:1,* 69-77.

Markey, C. N., Markey, P. M., & Birch, L. L. (2001). Interpersonal predictors of dieting practices among married couples. *Journal of Family Psychology, 15*:3, 464–475.

Martins, Y., Tiggemann, M., & Kirkbride, A. (2007). Those speedos become them: The role of self-objectification in gay and heterosexual men's body image. *Personality and Social Psychology Bulletin, 33,* 634 – 647.

Masheb, R. M., & Grilo, C. M. (2006) Emotional Overeating and its Associations with Eating Disorder Psychopathology among Overweight Patients with Binge Eating Disorder. *International Journal of Eating Disorder, 39,*141–146.

Meyer, C., & Waller, G. (1998). Dissociation and eating psychopathology: Gender differences in a non clinical population. *International Journal of Eating Disorders, 23,* 217-221.

Mirza, N. M., Davis, D., & Yanovski, J. A. (2008). Body dissatisfaction, self-esteem, and overweight among inner city Hispanic children and adolescents. *Journal of Adolescence and Health, author manuscript,* June 5.

Mruck, C. J. (2006). *Self-esteem Research Theory and Practice* (3rd ed.). New York: Springer.

Murnen, S. K., & Smolak, L. (1997). Femininity, masculinity, and disordered eating: A meta-analytic review. *International Journal of Eating Disorders, 22,* 231-242.

Mussell, M. P., Mitchell, J. E., Weller, C. L. Raymond, N. C., Crow, S. J., & Crosby, R. D. (1995). Onset of Binge Eating, Dieting, Obesity, and Mood Disorders Among Subjects Seeking Treatment for Binge Eating Disorder. *International Journal of Eating Disorders, 17:4,* 395-401.

Ohring, R., Graber, J. A., & Brooks-Gunn, J. (2002). Girls' recurrent and concurrent body dissatisfaction: Correlates and consequences over 8 years. *International Journal of Eating Disorders, 31,* 404–415.

Rierdan, J., Koff, E., & Stubbs, M. L. (1989). A longitudinal analysis of body image as a predictor of the onset and persistence of adolescent girls' depression. *Journal of Early Adolescence, 9,* 454–466.

Robinson, J.P., & Shaver, P.R. (1973). Measures of social psychological attitudes (2nd edition). Ann Arbor, MI: Institute for Social Research.

Sciangula, A., & Morry, M. M. (2009). Self-esteem and perceived regard: How I see myself affects my relationship satisfaction. *The Journal of Social Psychology, 149*(2), 143-58.

Smith C.F., Williamson D.A., Bray G.A., Ryan D.H. (1999). Flexible vs. Rigid Dieting Strategies: Relationship with Adverse Behavioral Outcomes. *Appetite, 32,* 295-305.

Smith, J. E., Waldorf, V. A., & Trembath, D. L. (1990). Single white male looking for thin very attractive..., *Sex Roles, 23,* 675-685.

Smith, R. (2006). On diffidence: The moral psychology of self-belief. *Journal of Philosophy of Education, 40*(1), 51-62.

Smith, T. & Hawks, S. R. (2006). Intuitive Eating, Diet Composition, amd the meaning of food in healthy weight promotion. *American Journal of Health Education, 37:3,* 130-136.

Tata, P., Fox, J., & Cooper, J. (2001). An investigation into the influence of gender and parenting styles on excessive exercise and disordered eating. *European Eating Disorders Review, 9,* 194-206.

Thelen, M. H., Farmer, J., Mann L. M., & Julie Pruitt. (1990) Bulimia and Interpersonal Relationships: A Longitudinal Study. *Journal of Counseling Psychology, 37, 1,* 85-90.

Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). Exacting beauty: Theory, assessment, and treatment of body image disturbance. *Washington, DC: American Psychological Association.*

Top 10 reasons for overeating. (1996). *Hope Health Letter*, 16,1.

Tovee, M. J., & Cornelissen, P. L. (2001) Female and male perceptions of female physical attractiveness in front-view and profile. *British Journal of Psychology, 92,* 391- 402.

Tribole, E., & Resch, E. (2003). Intuitive eating: A revolutionary program that works. *Journal of Counseling Psychology, 53,* 226-240.

Tylka, T. L. (2006). Development and Psychometric Evaluation of a Measure of Intuitive Eating. *Journal of Counseling Psychology, 53:2*, 226–240.

Tylka, T. L., & Wilcox, J. A. (2006). Are intuitive eating and eating disorder symptomatology opposite poles of the same construct? *Journal of Counseling Psychology, 53,* 474-485.

Van Diest, A. K. & Tylka, T. L. (2007). Gender Differences in Intuitive Eating and Factors That Negatively Influence Intuitive Eating. *Senior Honors Thesis, Ohio State University,* November.

Vohs, K.D., Bardone, A. M., Joiner, T. E., Abramson, L. Y., & Heatherton, T. F. (1999). Perfectionism, perceived weight status, and self-esteem interact to predict bulimic symptoms: A model of bulimic symptom development. *Journal of Abnormal Psychology, 108,* 695-700.

Wear, R. W., & Pratz, O. (1987). Test-retest reliability for the Eating Disorder Inventory. *International Journal of Eating Disorders, 6,* 767-769.

Whisman, M. A., Snyder, D. K., & Beach, S. R. H. (2009). Screening for Marital and Relationship Discord. *Journal of Family Psychology, 23:2,* 247–254.

Yacono Freeman, L. M., & Gil, K. M. (2004). Daily Stress, Coping, and Dietary Restraint in Binge Eating. *International Journal of Eating Disorders, 36,* 204–212.

Yahia, N., El-Ghazale, H., Achkar, A., & Rizk, S. (2011). Dieting practices and body image perception among Lebanese university students. *Asia Pacific Journal of Clinical Nutrition, 20;1,* 21-28.

Appendix

Haigazian University

To Whom It May Concern,

My name is Maria Tekeyan and I'm doing my Master's in Clinical Psychology at Haigazian University. The following questionnaire is part of my Thesis and it consists of demographic questions and four scales which measure a variety of attitudes, feelings and behaviors. There are no right or wrong answers so try very hard to be completely honest in your answers. Results are completely confidential. If you have any inquiries about the results of this study, please do not hesitate to contact me at the following e-mail address: maria_tekeyan@hotmail.com

Thank you for your cooperation,

Maria Tekeyan

I. Socio - Demographic Information

Directions: Answer each question by writing directly the answer in the gap or by placing an (X) next to the answer which applies best for you. Please answer each question VERY carefully. Thank you.

Gender
( ) Male
( ) Female

Age
( ) 18 - 20
( ) 21 – 24
( ) 25 – 30
( ) 30 +

Relationship status
( ) Single
( ) Engaged or Long term relationships
( ) Married
( ) Divorced

Are you currently employed? ( ) Yes ( ) No

What is your total monthly household income?
( ) Less than $1000
( ) $1000 to $2000
( ) $2000 to $3000
( ) $3000 to $4000
( ) More than $4000

What is the highest year of school you completed?
( ) Elementary School
( ) High School
( ) Technical School
( ) University
( ) Graduate Studies

What is your religion?
( ) Christian Catholic
( ) Christian Maronite
( ) Christian Orthodox
( ) Druze
( ) Islam Shiaa
( ) Islam Sunni

What is your current weight in Kilograms? _____
What is your height in meters? _____
Are you satisfied with your weight? ( ) Yes ( ) No
Have you ever tried to go on a diet? ( ) Yes ( ) No
Have you ever followed a STRICT diet? ( ) Yes ( ) No
Do you exercise regularly? ( ) Yes ( ) No

II. For each item, please circle the answer that best characterizes your attitudes or behaviors.

1. **I try to avoid certain foods high in fat, carbohydrates, or calories.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

2. **I stop eating when I feel full (not overstuffed).**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

3. **I find myself eating when I'm feeling emotional (e.g., anxious, depressed, sad), even when I'm not physically hungry.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

4. **If I am craving a certain food, I allow myself to have it.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

5. **I follow eating rules or dieting plans that dictate what, when, and/or how much to eat.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

6. **I find myself eating when I am bored, even when I'm not physically hungry.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

7. **I can tell when I'm slightly full.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

8. **I can tell when I'm slightly hungry.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

9. **I get mad at myself for eating something unhealthy.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

10. **I find myself eating when I am lonely, even when I'm not physically hungry.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

11. **I trust my body to tell me when to eat.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

12. **I trust my body to tell me what to eat.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

13. **I trust my body to tell me how much to eat.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

14. **I have forbidden foods that I don't allow myself to eat.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

15. **When I'm eating, I can tell when I am getting full.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

16. **I use food to help me soothe my negative emotions.**

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

17. **I find myself eating when I am stressed out, even when I'm not physically hungry.**

1	2	3	4	5

Strongly Disagree Disagree Neutral Agree Strongly Agree

18. **I feel guilty if I eat a certain food that is high in calories, fat, or carbohydrates.**

1 2 3 4 5
Strongly Disagree Disagree Neutral Agree Strongly Agree

19. **I think of a certain food as "good" or "bad" depending on its nutritional content.**

1 2 3 4 5
Strongly Disagree Disagree Neutral Agree Strongly Agree

20. **I don't trust myself around fattening foods.**

1 2 3 4 5
Strongly Disagree Disagree Neutral Agree Strongly Agree

21. **I don't keep certain foods in my house/apartment because I think that I may lose control and eat them.**

1 2 3 4 5
Strongly Disagree Disagree Neutral Agree Strongly Agree

III. For each item, please circle the answer that best characterizes your attitudes.

1. **I feel that I am a person of worth, at least on an equal plane with others.**

1 2 3 4
Strongly Disagree Disagree Agree Strongly Agree

2. **I feel that I have a number of good qualities.**

1 2 3 4
Strongly Disagree Disagree Agree Strongly Agree

3. **All in all, I am inclined to feel that I am a failure.**

1 2 3 4
Strongly Disagree Disagree Agree Strongly Agree

4. **I am able to do things as well as most people.**

1 2 3 4
Strongly Disagree Disagree Agree Strongly Agree

5. **I feel I do not have much to be proud of.**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

6. **I take a positive attitude towards myself.**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

7. **On the whole, I am satisfied with myself.**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

8. **I wish I could have more respect for myself.**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

9. **I feel entirely useless at times.**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

10. **At times, I think that I am no good at all.**

1	2	3	4
Strongly Disagree	Disagree	Agree	Strongly Agree

IV. Read each question and please circle the answer which applies best for you. Please answer each question *very* carefully. Thank you.

1. **I think my stomach is too big.**

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

2. **I think that my thighs are too large.**

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

3. I think that my stomach is just the right size.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

4. I feel satisfied with the shape of my body.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

5. I like the shape of my buttocks.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

6. I think my hips are too big.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

7. I think that my thighs are just the right size.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

8. I think my buttocks are too large.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

9. I think that my hips are just the right size.

1	2	3	4	5	6
Always	Usually	Often	Sometimes	Rarely	Never

V. ONLY FOR COUPLES WHO ARE MARRIED, ENGAGED OR IN A LONG-TERM RELATIONSHIP. Read each statement and decide if it is TRUE for you or FALSE for you. Then circle the answer beside each statement. If the statement is true or mostly true for you, circle the "T." If the statement is false or not usually true for you, circle the "F." Mark only one response for each statement.

1. **I get pretty discouraged about our relationship sometimes.**	T	F
2. **My partner often fails to understand my point of view on things.**	T	F
3. **Whenever I'm feeling sad, my partner makes me feel loved and happy again.**	T	F
4. **My partner and I spend a good deal of time together in different kinds of play and recreation.**	T	F
5. **My partner has too little regard sometimes for my sexual satisfaction.**	T	F
6. **There are some serious difficulties in our relationship.**	T	F
7. **Minor disagreements with my partner often end up in big arguments.**	T	F
8. **Just when I need it the most, my partner makes me feel important.**	T	F
9. **Our daily life is full of interesting things to do together.**	T	F
10. **Our sexual relationship is entirely satisfactory.**	T	F