HAIGAZIAN UNIVERSITY

Body Dissatisfaction, Social Comparison, Life Satisfaction, and Gender as Predictors of Disordered Eating Behaviors in Lebanese University Students

Karim Khalil

A Thesis submitted to the Faculty of Social and Behavioral Sciences in partial fulfillment of the requirements for the Master of Art in Psychology – Emphasis: Clinical Psychology at Haigazian University.

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Body Dissatisfaction, Social Comparison, Life Satisfaction, and Gender as Predictors of Disordered Eating Behaviors in Lebanese University Students

By Karim Khalil

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DEDICATION

I would like to dedicate this thesis to every person dealing with mental health issues regarding eating disorders. I hope it sheds light to the subject as a serious issue in our society and minimizing the stigma and shame of such topics. I would also like to dedicate this to all mental health workers and professors, to whom students may look at for guidance.

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Abstract

The study investigated the relationships between body dissatisfaction, social comparison, life satisfaction, gender and disordered eating behaviors (restrictive, emotional, and external eating) in Lebanese university students. A total of 130 participants participated in this survey design study by filling a demographics sheet, the Body Shape Questionnaire (BSQ), the Physical Appearance Comparison Scale–3 (PACS-3), the Brief Multidimensional Students' Life Satisfaction Scale- College Version (BMSLSS-C), and the Dutch Eating Behavior Questionnaire (DEBQ). It was found that body dissatisfaction, upper social comparison, dissatisfaction with self were predictors of restrained eating behaviors. Satisfaction with family, on the other hand, was found to be a predictor of emotional eating behaviors. Moreover, upper social comparison was found to be a predictor of external eating behaviors. Females engaged in more restrictive eating than males, but no significant gender differences were found with emotional and external eating. We concluded that higher body dissatisfaction, as well as higher social comparisons and lower life satisfaction can have negative consequences on eating behaviors in university students, but more so with females. We recommended helping students through psychoeducational programs and family counseling for improved body image and behavior.

Key words: Lebanese university students, body dissatisfaction, life satisfaction, upper social comparison, gender, restrictive eating, emotional eating, external eating.

Chapter 1

Body Dissatisfaction, Social Comparison, Life Satisfaction, and Gender as predictors of Disordered Eating Behaviors in Lebanese University Students

Disordered eating behaviors are significantly prevalent and persistent among college students. According to Van Strien (1986), there are three different types of disordered eating: emotional, restrained and external eating. Emotional eating is defined as eating in response to an emotional state, such as anger, fear and anxiety. Restrained eating refers to attempts to refrain from eating in order to lose or maintain a particular weight. External eating refers to eating in response to food related stimuli like sight or smell, regardless of hunger or satiety. These unhealthy eating styles have been linked to the development of bingeing, obesity (Eldredge & Agras, 1996) and eating disorders such as bulimia and anorexia nervosa (Stice, Presnell, & Spangler, 2002). In a recent cross-cultural study involving 1965 university students from three European countries (Poland, Hungary, Ukraine), 26.4% of the students reported eating disorders (Kiss-Toth, Wasilewska, Sopel, Mandziuk, Ladner, Varga, 2018). Several studies have tried to understand risk factors for eating pathology; this includes the pressure to be thin which has been shown to increase body dissatisfaction which in turn increases dieting behaviors (Stice, 2002). Furthermore, research suggests that body dissatisfaction seems to be more elevated and common among college women, with a study showing that up to 90% of female undergraduates in an American university, reported some dissatisfaction with their body (Raudenbush and Zellner, 1997).

The social aspect of university and desire to fit in might play a factor in this. According to Festinger's social comparison theory, humans have an innate drive to understand their place in

the world. By social comparison, Festinger explains as the process by which people come to understand their own ability or condition by mentally comparing themselves to others. Hence, the necessity for such self-evaluation is the comparisons with other people (Festinger, 1954). This can include appearance-focused social comparisons, which has been shown to be related to greater levels of body image dissatisfaction (Myers & Crowther, 2009). Thus, since social comparison seems to be related to body dissatisfaction, it will be interesting to see if it can also be a predictor of disordered eating behaviors.

Additionally, satisfaction with physical appearance and satisfaction with self were also shown to be related to disordered eating behaviors in college students. More specifically, life satisfaction domains (friends, family, self, university, location) have been looked at in relation to disordered eating, such as dissatisfaction with friendships which was related to binge eating behavior and satisfaction with family and school were related to weight loss behaviors, also dissatisfaction with self was related to wanting to lose weight (Matthews-Ewald, Zullig, Ward, Horn, & Huebner, 2012). On the other hand, among college students who were satisfied with their lives, body dissatisfaction had minimal influence in determining their values and feelings about self. Clearly this seems to point to a link between life and body satisfaction where the more a person was satisfied with their life, the less importance they would put on their body image (Gongora, 2014; Brannan & Petrie, 2011). Therefore, since life satisfaction was seen to be related to eating behaviors like dieting and bingeing as well as body dissatisfaction, it will be interesting to examine the way it is related to the specific types of eating behaviors namely emotional, restrictive, and external eating in a Lebanese university sample.

According to a study by Mathews (2012), that included 723 students in a university in the United States, showed that dissatisfaction with family life is related to weight loss. In Lebanon,

there is a high prevalence of disordered eating behaviors among university students which also includes dieting and bingeing behavior (Soweid, Kteily, & Rizkallah, 2002). Moreover, in another study with a Lebanese sample, students felt pressured to lose weight by their family and by society and had fear of weight gain. (Zeeni, Safieddine, & Doumit, 2015). Since it has been shown that societal pressure and family seem to play a part in students feeling pressure to lose weight, and with disordered eating being highly prevalent with the Lebanese population, it will be interesting to see if satisfaction with family life as well as social comparison can be predictors of specific disordered eating behaviors such as restrictive, emotional, and external eating.

Purpose of the Study

In line with the preceding research and discussion, the purpose of this study was to investigate the contribution of body dissatisfaction, social comparison, life satisfaction, and gender to disordered eating behaviors, among Lebanese University students.

Rationale of the Study

Research on disordered eating behaviors is still limited in the Middle East region. A study on female college students, from a sample of four universities in the West-Bank, Palestine, showed that body dissatisfaction was a high predictor of dieting, as well as internalization of slender ideal which can increase probability of various eating and emotional problems (Bayyari, Henry, & Jones, 2013). In Lebanon, in a study conducted with only females, college students from the Lebanese American University were likely to try and diffuse emotional states (such as anger, anxiety) by excessive eating in response to external food-related stimuli, which means that as a coping mechanism for their emotions, they were vulnerable to developing problematic eating behaviors (Katsounari & Zeeni, 2012). Another study which included 954 male and

female students from the American University of Beirut showed high prevalence in preoccupation with weight and disordered eating behaviors, with 37.7% of respondents trying to lose weight, 12.8% trying to gain weight, and 22.3% trying to maintain their weight (Soweid, Kteili, & Rizkallah, 2002). This highlighted the need for more research in what can be the main contributors of disordered eating behaviors in our region.

Furthermore, dissatisfaction with life and social comparison have been among the strongest predictors of eating disturbances among university students according to international studies in Australia and the United States (Brannan & Petrie, 2011; Bailey & Ricciardelli, 2009). Taking that into consideration as well as the study by Katsounari and Zeeni (2012), in which Lebanese university students expressed issues of weight concern due to cultural pressures, it seemed beneficial to understand further the roles of body dissatisfaction and social comparison as possible predictors of disordered eating behaviors.

According to Eisenberg (2011), it is important to address eating pathology in college populations due to the prevalence of body image and eating behavior concerns. The information gathered on predictors of disordered eating could help in the development of effective intervention strategies in a therapeutic context. Moreover, intervention for this type of problem is scarce in Lebanon. The more knowledge there is about predictors of disordered eating behaviors, the more therapy can be empowered to provide effective help to those that need it.

In conclusion, although few studies in the Arab region have focused on a relationship between body dissatisfaction, societal pressure including family and friends, and eating attitudes, this study aimed to focus exactly on these variables as predictors to the specific eating behaviors namely restrictive, emotional, and external eating.

Background of the Study

Emotional, Restrictive, and External Eating Behaviors

Individuals are different in terms of how they regulate their food intake. According to Macht and Simmons (2000), when having experienced negative events some individuals use eating as a strategy to cope with their negative emotions; this would be related to emotional eating. Additionally, humans are different in terms of how much they feel like eating when confronted with food that smells and looks good, which is associated to external eating (Wardle, 1987). Finally, some individuals have a strong focus on regulating food intake to lose or maintain body weight, which is linked to restrained eating (Van Strien et al., 1986). Since these three eating styles have been correlated with eating disorders such as obesity, bulimic tendencies and anorexia, it was important to assess the predictors of such unhealthy behaviors.

Social Comparison, Body Dissatisfaction, and Life Satisfaction

According to Festinger (1954), there are two types of social comparison: Upward and Downward social comparisons. Upward comparison refers to comparing oneself to someone perceivably better off. Downward comparison is defined as the processes by which individuals evaluate themselves against those perceived to be inferior on a given dimension. Social comparison is considered as a predictor of body dissatisfaction. According to a meta-analytic review of 156 studies from years 1986 to 2009, which mainly included both adolescent and college students, results confirmed the theory which proposed that comparing oneself unfavorably to others may lead to dissatisfaction with one's appearance (Myers & Crowther, 2009). A more recent study on female university students took it further by showing that upward comparisons facilitates thin-ideal internalization, which then contributes to body dissatisfaction

(Vartanian & Dey, 2013). Furthermore, according to Shin and Shin (2008), body dissatisfaction is influenced by biological, psychological, and sociocultural factors. In a collectivist society, the influence is even greater, such as, negative parental opinions about one's weight and a history of being teased by peers are all associated with body dissatisfaction as well and can lead to unhealthy eating behaviors. Hence, since these variables are interrelated, this study took a closer look on body dissatisfaction, social comparison, life satisfaction with family and friends as they relate to disordered eating behaviors in a Lebanese university population.

Body Dissatisfaction and Disordered Eating

Several studies from different cultures showed the relationship between body dissatisfaction and disordered eating. For instance, in a study with South Korean women, the results supported that the body dissatisfaction phenomenon led to a drastic rise in dieting behaviors, in order to attain the thin model image (Kim, 2018). Another study with 447 Thai female undergraduate, 19.24% of students had body image dissatisfaction, and there was a positive correlation between body dissatisfaction and disordered eating behaviors. (Somrongthong & Thianthai, 2013).

In a study with a Lebanese sample of 811 adults which included but was not limited to university students, results showed that those who were influenced about how they viewed their own body appearance through media messages, concerns from parents, siblings and peer had higher body dissatisfaction. Also, there was a strong association between the pressure of family regarding one's appearance and the need to diet with body dissatisfaction (Haddad et al., 2019). This could lead to behaviors of bingeing as well. Therefore, the current study aimed to understand if disordered eating behaviors are a result of body dissatisfaction in a Lebanese college sample.

Social Comparison and Disordered Eating

Cross-cultural studies have shown that body comparisons have been found to be harmful among college women (Pinkasavage, Arigo, & Shumacher, 2015; Fitzsimmons-Craft et al., 2014). Comparing one's body to another has been linked to thoughts about restriction and restriction attempts, increased exercising, and binge eating (Fitzsimmons-Craft, Ciao, & Accurso, 2015). This in turn might mean that increased social comparison, is a contributing factor with both emotional and restrained eating. Hence, the current study aimed to study the relationship between social comparison and disordered eating behaviors in a sample of Lebanese college students.

Life Satisfaction as potential protective factor to body image issues and disordered eating

Brannan and Petrie (2011) have shown that among college women who are satisfied with their lives and are considered optimistic, body dissatisfaction is insignificantly influential in determining their experiences, goals, values, and feelings about self. This in turn would lead these women to be more accepting of themselves regardless of societal ideal, have less intense emotional reactions and be less driven to engage in dietary restraint (Brannan & Petrie, 2011). This could mean that women who are satisfied with their lives, would less likely resort to unhealthy emotional or restrained eating. Hence, the inclusion of interventions promoting satisfaction with life may have a protective effect on body image (Gongora, 2014). Another study on both male and female college students in Miami University showed that satisfaction with physical appearance and satisfaction with self, were determined to be most strongly related to disordered eating behaviors (Matthew-Ewald et al., 2012). In a Lebanese sample where sociocultural factors play a role in eating behaviors, it seemed interesting to investigate how life satisfaction plays a role in disordered eating behaviors.

Gender as a Variable

In a study on 252 college students in Lebanon, women were more worried about their body shape than males as 89% of the extremely worried students were females (Yahia, El-Ghazale, Achkar, & Rizk, 2011). This does not mean that male university students in Lebanon aren't at risk with up to 20% being preoccupied with their weight, and 12% displaying disordered eating (Afifi-Soweid, Kteily, & Shediac-Rizkallah, 2001). Also, in a recent study, Matthews-Ewald and colleagues (2012), have shown that college females (n=723) in the US reported higher levels of poor eating behaviors/weight perceptions and lower global Life Satisfaction (satisfaction with life as a whole) than men.

Furthermore, a study on 3271 undergraduate students from Assuit University in Egypt showed that a higher percentage of females reported body image concerns than males. 15.8% of female showed moderate body image concerns (BIC), and 24.2% showed mild BIC. As for males, 8.3% showed moderate BIC, while 17.3% showed mild BIC (El Ansari, Dibba, Labeeb, & Stock, 2014). Another study on college students in the UAE showed that although females had higher scores of body dissatisfaction than males, more than half of the males in the study (58%) also had high scores of negative body image concerns (Schulte & Thomas 2013). Based on these findings, the current study investigated the gender differences in disordered eating behaviors, based on body dissatisfaction and satisfaction with life.

Hypotheses

Based on the above discussed literature, the following hypotheses were investigated:

1. Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict restrictive eating in Lebanese university students.
2. Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict emotional eating in Lebanese university students.
3. Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict external eating in Lebanese university students.
4. Female Lebanese university students score higher on a) restrictive, b) emotional and c) external eating than male Lebanese students.

Significance of the Study

This study would be a useful addition to the field of research concerned with disordered eating behaviors. There are a number of statistical research on eating disorders, particularly bulimia nervosa, anorexia nervosa, and binge eating disorder. Only few studies are done concerning the different types of eating behaviors, in this case emotional and restrained, which are key factors to understanding the dynamics behind eating disorders. Furthermore, understanding the different variables affecting these behaviors within a Middle Eastern population, more specifically Lebanon, would be an added bonus as most of these studies have been done in Western or East-Asian cultures.

Since this study evaluated the role of social comparison, body dissatisfaction and different life satisfaction domains in relation to disordered eating behaviors, it could help professionals in Lebanon better understand the major areas of concern when tackling patients

with eating disorders. Instead of just focusing on eating pathology, inclusion of interventions that could help minimize upward comparisons and promote life satisfaction could have a protective effect on body image and pathological eating.

Overview of Methodology

This was a quantitative study applying a survey method. Multiple regression analysis and t-test were used to examine the hypotheses. The study included a convenient random sampling of 130 Lebanese university students in Haigazian. After briefly explaining the purpose of the study individually, the participants filled out a consent form, set of demographic questions and a set of questionnaires pertaining to eating activities were presented in a booklet form. The scales were in English and only participants fluent in the English language were approached. SPSS version 25 was used for the statistical analysis.

Definition of Terms

Emotional Eating: Eating in response to emotional arousal states, such as anger, fear or anxiety (Van Strien, Frijters, Bergers, & Defares, 1986).

Restraint Eating: Conscious efforts to limit and control dietary intake (Van Strien, Frijters, Bergers, & Defares, 1986).

External Eating: Eating in response to food related stimuli like sight or smell, regardless of hunger or satiety (Van Strien, Frijters, Bergers, & Defares, 1986).

Upward Comparison: When comparing oneself to someone perceivably better off.

CHAPTER 2

Review of Literature

The purpose of this study was to investigate the contributing factors of body dissatisfaction, social comparison, life satisfaction, and gender on disordered eating behaviors, among Lebanese University students. Therefore, this chapter is a literature review, with the aim of providing the needed context for the examined hypotheses in this paper. Both international and local studies were included that were relevant to the topic at hand.

Eating Disorders

The Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-V, 2013) recognizes several types of eating disorders in the general population. The most prevalent ones include *Anorexia Nervosa*, which is the restriction of energy intake relative to requirements, low body weight in context of age, sex, developmental trajectory, and physical health which leads to less than normal weight as well as disturbance in the way body shape is experienced. The next one is *Binge Eating Disorder* which must include recurrent episodes of bingeing (a lack of sense of control during an episode of eating a larger than normal amount within a small-time frame). It is also associated with other symptoms. The next one is *Bulimia Nervosa* which include episodes of bingeing, as well as inappropriate compensatory behavior to prevent weight gain such as vomit, laxatives, medications, fasting, excessive exercise, etc. A systematic literature review looked at the prevalence of eating disorders over the 2000-2018 period with 121 studies. Studies with accurate Eating Disorder (ED) diagnosis in this review showed 8.4% of lifetime prevalence ED for women, and 2.1% for men. The prevalence of ED also increased over the study period from 3.5% in 2000-2006 to 7.8% in 2013-2018 showing an increasing challenge for public health providers (Galmiche, Dechelotte, Lambert, & Tavolacci, 2019). Since it was important to

understand behaviors related to these eating disorders, three significant eating responses were investigated, which have been shown to be associated with pathological eating behaviors. These eating responses were the emotional, restricted, and external eating (Katsounari & Zeeni, 2012), which are all discussed in the following section.

Disordered Eating Behaviors

According to Mintz and Betz, in a study with college women, subjects were classified into eating categories, where eating disorders such as bulimia were infrequent, but a high percentage exhibited behaviors such as purging, chronic dieting and overeating; 64% fell midway between normal and bulimic. This showed that these behaviors are the rules rather than the exception (1988). The three eating behaviors in question are as follows:

Restrained Eating is defined as a persistent fixation on dieting and weight, and the amount of food eaten is restricted for the purpose of weight loss or maintenance. In s study where 53 recovered eating disorders patients were interviewed, 62% of restrained eating dieters had current eating-disordered preoccupations, while unrestrained eaters (individuals who do not restrict or fixate for the purpose of weight loss and maintenance) had no typical eating-disordered preoccupations or rituals (Sunday & Halmi, 2000). As was mentioned with emotional eating, dietary restriction has also been implicated as a risk factor in the development of obesity, binge-eating, and clinically diagnosable eating disorders, such as bulimia nervosa (Stice, Presnell, & Spangler, 2002).

Emotional Eating is defined as the consumption of food which occurs when an individual responds to arousal states such as anger, fear, or anxiety by excessive eating (Van Strien, Frijters, Bergers, & Defares, 1986). Emotions play a large role in eating patterns and behaviors; meals

eaten in positive and negative moods are larger than meals eaten in a neutral mood (Patel and Schlundt, 2001). Research by Luomala, Sirieix, and Tahir (2009) that explored emotional eating patterns in different cultures such as Pakistan, France, and Finland, showed that students react to negative emotional experiences (in this case irritation and shame) by increasing food consumption and food indulgence; this was truer for the Finnish and Pakistani culture than the French culture. Moreover, emotional-eating patterns have connections with obesity, anorexia nervosa, and bulimia, which makes the study of this topic socially relevant (Luomala, Sirieix, & Tahir, 2009). Other studies have also shown that during negative emotions a heightened tendency to cope with these emotions through eating and more intense bodily symptoms of hunger were also reported (Macht & Simmons 2000).

External Eating is defined as eating in response to food-related stimuli regardless of the internal state of hunger or satiety. Following Schachter & Rodin (1974) who argued that some people are more sensitive to external food cues than others, the 'external eater' was identified by Van Strien (1986). An external eater is supposed to be extremely cue reactive and easily overeats in response to external food- related cues such as the sight and smell of palatable foods. This would mean they have a higher chance of overeating which could lead to being overweight and obesity (Jansen, Nederkoorn, Roefs, Bongers, Teugels, & Havermans, 2011).

Both emotional and restrained eating have been shown to be interrelated, especially the relationship between intense dieting and emotional eating. Research shows that when exposed to significant stressors, restrained eaters eating becomes disinhibited, resulting in the consumption of significantly larger quantities of food than when not distressed (Heatherton, Herman, Polivy, King, & Mcgree, 1988). Due to the negative health consequences presented, these three disordered eating behaviors were investigated in this study.

University Students as vulnerable population

Studies have shown that students tend to gain weight when starting University. This is a phenomenon coined as the ‘‘Freshman 15’’ in North America, referring to the fact that on average, students tend to gain 15 pounds (6.8 kg) in their first year of college (Vadeboncoeur, Townsend, & Foster, 2015). With this being a famous term abroad, first year female students who are extremely concerned about their appearance may try to avoid this dreaded phenomenon by resorting to dieting or other extreme eating or exercise behaviors. A study that looked at 336 first-year female undergraduate students at Rutgers University showed no significant increase in being overweight and obesity, but there was increase in restraint eating and shape concern which may indicate increased risk for the development of eating pathology (Delinsky & Wilson, 2008). Another study which also looked at college freshmen in an urban region of South California found a 31% prevalence of disordered eating; this included shape concern, weight concern, dietary restraint as well as binge eating. The overall prevalence of disordered eating did not differ in ethnic groups but there were a higher number of female with eating concerns than males (Barrack, West, Christopher, & Pham-Vera, 2019).

Although it has been shown that first year university students are a vulnerable population, there are also disordered eating symptoms among university students in general as traditional undergraduate years directly coincide with median age of onset for eating disorders (Hudson, Hiripi, Pope, & Kessler, 2007). The Healthy Bodies Study (HBS) is a population-level, web-based survery. Lipson and Sonnerville (2017) used HBS data to estimate the prevalence of eating disorder symptoms with survey results from a large sample of 9713 students at 12 colleges and universities across the United States (both undergraduate and graduate). There were high rates of binge eating among both genders, with higher results for females (49%) in comparison to males

(30%). The prevalence of compensatory behavior for females and males (31% and 29% respectively) was both high and similar for both genders. Compensatory behaviors can include purging and laxatives, which are symptomology for bulimia nervosa, as well as extreme dietary restraint or restrictive eating. Another study with 264 students from Wagner College in New York City found a high number of night eating syndrome with high numbers of emotional and external eating behaviors which was in line with another study where students who experienced high levels of stress and engaged in less adaptive coping strategies were more likely to engage in night eating (Nolan & Geliebter, 2012; Wichianson, Bughi. Unger, Spruijt-Metz, & Nguyen-Rodriguez, 2009). These studies are an indication that University students are a vulnerable population and hence were the sample for this study.

Disordered Eating Behaviors in Lebanon

In Lebanon, and the Arab region as a whole, research in eating disorders and disordered eating behaviors is limited. A study which included 104 patients with Eating Disorders in Lebanon looked at demographics, comorbidities, therapy characteristics, and a focus group of individuals with eating disorders to answer main challenges. In this study, 39.4 % were diagnosed with Anorexia Nervosa, 46.1 % with Bulimia Nervosa and 14.4 % with Binge Eating Disorder. The majority of patients seeking treatment were females (88.5 %). The most common occupation found was student (39.2 %), and the mean age of onset of the Eating Disorders was 19.8 ± 1.2 years (this is the most common age group of University students; the population used for this study). There were comorbidities as well, with 67.3 % of patients diagnosed with depression, 12.2 % of patients had disturbed cholesterol or triglyceride levels, 19 % had low blood pressure, as well as other health risks. As for therapy, all clinicians were using cognitive behavioral therapy (CBT) as their main treatment method; psychiatrists also prescribed

antidepressants and/or anxiolytics when needed. In the focus group, it was found that there was a delay in seeking help, not enough interdisciplinary care platform, and patients wanted to improve their self-image and lose weight (Zeeni, Safieddine, & Doumit; 2015). In a study done with 954 students from the American University of Beirut, it was found that 37.7% of respondents were trying to lose weight, 12.8% were trying to gain weight, and 22.3% were trying to maintain their weight. Students showed a desire to be thinner, and awareness of their caloric content. According to the study, these percentages and the preoccupation with weight are especially alarming as they represent indicators and behaviors of students beginning their college education, with the stress of university and its associated peer pressure which can be an influence on them (Afifi-Soweid, Najem Kteily, & Shediac-Rizkallah; 2001). This highlighted the need for more information on disordered eating in this region, with a focus on the vulnerable age group (18 and higher) where the onset of eating disorder starts and predictors of that onset.

Since this paper focused on specific disordered eating behaviors such as external, emotional, and restrictive eating, other studies using these specific behaviors in this region were examined. In a study where 198 female university students from Lebanese American University were compared against female students from Cyprus, it was concluded that Lebanese students were more likely to engage in emotional and external eating and their body image was impacted to a larger extent by sociocultural agents, compared to the Cypriot students. This showed the influence of the society in our culture where Lebanese university students might be more sensitive to peers' opinions and give more importance to social judgment. There was a higher vulnerability to emotional and external cues which also revealed a prominent cultural concern with weight loss and dieting in Lebanon. Also, there was a positive relationship found between restrained and emotional eating, which according to the study, could be explained by the fact that

severe dieting can lead to emotional exhaustion and excessive emotionality (Zeeni, Gharibeh, & Katsounari; 2013). This could then lead to other more serious eating problems such as bulimia and bingeing. This study therefore aimed to investigate predictors of these disordered eating behaviors which have shown to be significant in our culture.

It is important to mention that most literature includes mainly female participants. According to Lundahl and associates, although men report lower disordered eating behaviors compared to women, it is important to mention that men do also report some levels of disordered eating (Lundahl et al. 2015). It would be helpful to see if in our culture, gender plays a role in disordered eating behavior. As was seen previously, females felt sociocultural pressure to be a certain weight, so gender was examined as a possible predictor for disordered eating in a Lebanese University population.

Gender

Most studies show that females tend to have more pressure to be a certain weight, thus engaging in more disordered eating behaviors in comparison to men. In saying this, studies with male subjects are limited; especially in our region of Lebanon. A study conducted among 582 college students from Southeastern University in North Carolina to examine students' eating attitudes reported that disturbed eating attitudes and dieting were more common among their female students with 13% than male students with 10% of its participants (Sira & Pawlak, 2010). In a study involving 252 college students from Lebanese American University, the difference in gender was even greater. Females were more worried about their body shape than males as 89% of the extremely worried students were females, whereas, the majority of the "not worried" group were male students. Furthermore, it was reported in the study that more women than men

perceive themselves as overweight and that they had a faster rise of weight loss attempts than men (Yahia, El-Ghazale, Ashkar, & Rizk; 2011).

According to Wade and Tiggerman (2013), adolescent girls from Portugal and Spain reported more disordered eating attitudes, body dissatisfaction, and internalization of the unrealistic ideal body ideal and lower self-esteem than boys. Some studies have tried to see what could affect males to develop disordered eating behaviors, and it was shown that men who fear negative evaluation by others are more likely to engage in behavioural features of disordered eating in order to ameliorate the experienced negative feelings and thoughts, as well as positive judgement from others (Antonios, Assunta, Giuseppe, Fabrizia, Chiara, Fabio, & Massimo; 2015). Furthermore, in a study involving 716 college students from Kuala Lumpur and Selangor, Malaysia, there were more female students (22.9%) who engaged in disordered eating compared to males (13.3%). Females also exhibited higher rates of body dissatisfaction and body disappreciation than males (Chin et al., 2020). These results could indicate that females feel more pressure in University in terms of body weight and body image which could lead to unhealthy eating behaviors. Although it is apparent that both males and females can suffer with disordered eating, it was helpful to understand the impact of gender in the development of disordered eating behaviors in a Lebanese University.

Body Dissatisfaction and Disordered Eating among University Students

Body dissatisfaction is defined as a negative subjective evaluation of the weight and shape of one's own body. It is often influenced by factors such as body shape and appearance, attitudes towards weight gain, and cultural norms in relation to an ideal body (Mcguinness & Taylor, 2016).

Several studies have shown that body dissatisfaction is prevalent among University students. In a recent study with 516 students from the University of Burgos in Burgos, Spain; 61.4% presented high or moderate body dissatisfaction. According to the article, it is possible to identify this as a risk for the development of eating disorders and food intake (Medina-Gomez, Martinez-Martin, Escolar-Llamazares, Gonzalez-Alonso, & Mercado-Val; 2019). Another study which looked at 981 university students in Brazil aimed to assess body dissatisfaction among their students. It was found that there was a high prevalence of body dissatisfaction among students with 83.2%. The most affected were women which is in line with the previous study mentioned in this review (Santana & Campos, 2015). This high prevalence of body dissatisfaction is also being shown to lead to disordered eating behaviors. For instance, in a study with South Korean women, the results shown supported that the body dissatisfaction phenomenon led to a drastic rise in dieting behaviors disordered eating, in order to attain the thin model image (Kim, 2018). Another study with 447 Thai female undergraduate, 19.24% of students had body image dissatisfaction, and there was a positive correlation between body dissatisfaction and disordered eating behaviors. This study also found that as the students have more stress, they will have more concerns regarding their body dissatisfaction and will be more worried about their shapes. The more stress they have, the less satisfied they will be with their bodies, and the unhealthier their eating disorder attitudes will be. This further shows the vulnerability of students in University (Pattanathaburt, Somrongthong, & Thianthai; 2013). Another study examined the thin ideal with restrained, emotional, and external eating in relation to body dissatisfaction. 163 female University students were looked at, and it was seen that there was higher susceptibility for thin ideal media and it directly related to higher scores on all eating styles, and indirectly related to higher restrained and emotional eating through elevated levels of body dissatisfaction (Anschutz, Engels, & Van Strien; 2008).

In Lebanon, in a study with a Lebanese sample of 811 adults which included but was not limited to university students, it was found that there was a strong association between body dissatisfaction and binge eating; in turn, there is clear evidence that binge eating is strongly related to dietary restraint. This is line with a finding in this study that body dissatisfaction was also higher in patients following a diet and was strongly correlated to eating disorders (Haddad et al., 2019). Another study in the University of Sharjah in the UAE was done using 308 university students. About 80.9% of the total sample were dissatisfied with their body image, with more than half of them wanting to be thinner. The study also found dissatisfaction in both males and females but with differences; female students who wanted to be thinner preferred following a diet for weight loss, whereas for males who desired to be heavier, the majority were physically active and less likely to follow a diet. The study concluded that it is essential to further comprehend the components that are related to the body image dissatisfaction among the female and male students and to confirm whether they are promoters or inhibitors of dieting (Radwan et al., 2019). This study therefore aimed to investigate body dissatisfaction as a predictor for the different eating behaviors, mainly restrained, emotional, and external.

Social Comparison and Body Dissatisfaction

The social comparison theory states that humans have an innate drive to understand their place in the world. In University, a new environment for students, it's been shown that body comparisons are prominent and particularly harmful. There are two types of social comparisons: Upwards social comparison which refers to comparing oneself to someone perceivably better off, and downward social comparison which refers to the processes by which individuals evaluate themselves against those perceived to be inferior on a given dimension (Festinger, 1954).

According to a meta-analytic review of 156 studies between 1986 and 2009 that included mostly adolescents and college students, results suggested that comparing oneself unfavorably to others may lead to dissatisfaction with one's appearance (Myers & Crowther, 2009). It is also suggested that social comparison is one of many processes by which individuals gather information about their own level of physical attractiveness; when the comparison is unfavorable, body dissatisfaction results increase (Tantleff-Dunn & Gokee, 2002). In addition, upward body and eating comparison especially were associated with elevated concurrent body dissatisfaction (Ftizsimmons-Craft, 2014).

A recent study which included 278 female university students from an unnamed university showed that upward comparisons facilitated thin-ideal internalization, which then contributed to body dissatisfaction (Vartanian & Dey, 2013). Furthermore, another study with 126 female university students (91 from the University of Trois-Rivieres in Quebec, Canada; 35 from the University of Poitiers in France), showed that women exposed to the thin-ideal models took longer to correctly identify self-liking verbs compared to women who were exposed to slightly larger models. This is further indication that upward physical comparison brings more negativity and doubt to the perception of oneself in terms of body image. The drop in implicit self-liking and the increase in the desire to be thin are caused by exposure and comparison to thin rather than more realistic models (Bocage-Barthelemy, Selimbegovic, & Chatard; 2018). Lastly, according to Shin and Shin (2008), body dissatisfaction is influenced by biological, physiological, and sociocultural factors, and in a collectivistic society, the influence is even greater. Therefore, it seemed interesting to add the factor of social comparison, which has shown to impact body dissatisfaction, in a collectivistic culture such as Lebanon.

Social Comparison and Disordered Eating

In a study where 196 adult women (77% of them university students) were recruited from Deakin University in Australia, one of the purposes was to examine social comparisons relation to body dissatisfaction and eating disturbances among the participants. It was found that overall, upward comparisons was the strongest predictor of body dissatisfaction and eating disturbance. Individuals who based their self-esteem on appearance displayed greater symptoms of disordered eating. This may include dieting and binge eating (Bailey & Ricciardelli, 2009). Another study had 235 female students as participants attending a large, public Southeastern university. The study highlighted disordered eating and dieting behaviors with results such as 22.2% of restrictive eating attempts, exercise for weight/shape reasons in 11.4%, vomiting in 0.5%, and binge eating in 3.2%. Any restriction attempt was reported by 74.6% of the sample, any exercise by 79.7%, any vomiting by 6.9%, and any binge eating by 28.9%. Results further revealed that more frequent eating comparisons were found to be harmful, as they prospectively predicted an increased likelihood of subsequent engagement in all disordered eating behaviors examined and mentioned above (with the exception of vomiting). More frequent body comparisons prospectively predicted more intense thoughts about restrictive eating and exercise (Fitzsimmons-Craft, Ciao; & Accurso; 2015). This showed the influence that physical social comparisons have on the university students' own eating behaviors, in order to better fit in. Studies including social comparison in our region are scarce, so this paper attempted to understand the contribution of social comparisons in explaining disordered eating behaviors in a Lebanese University population.

Satisfaction with life, body dissatisfaction, and disordered eating

Satisfaction with life is the cognitive evaluation of subjective well-being. This consists of a high frequency of positive affect or joy; the lack of negative feelings, such as depression or anxiety; and a moderate level of satisfaction (Lucas & Diener, 2009). According to Gongora (2014), dissatisfaction with life and lack of engagement were the most relevant predictors of eating related symptoms and body dissatisfaction. Inversely, a high level of satisfaction with life was associated with lower body dissatisfaction and lower desires to be thinner in female adolescents and was a significant predictor of these variables. Gongora concluded that inclusion of interventions to promote satisfaction with life may have a protective effect on body image, and thus eating attitudes and behaviors. In a study that included 218 female students from Texas A&M International University in Texas, body dissatisfaction proved to be the strongest predictor of life satisfaction of the variables considered, even beyond depression. This adds to the notion that disturbances in body image may be strongly related to overall satisfaction and well-being (Munoz & Ferguson, 2012). Another study looked at 847 female students from a University in the South Western United States showed that among women who are satisfied with their lives, and thus feel good about themselves, and are optimistic about the future, body dissatisfaction may be minimally influential in determining their experiences, goals, values, and feelings about self. So even though these female students might have some body dissatisfaction, being satisfied with their lives causes them less distress and are not defined by their body image perception, which plays less of an influential role in their lives. Overall, this paper suggested that satisfaction with life and psychological health have had positive and moderating effects on disordered eating symptoms such as bulimic symptomology (Brannan & Petrie, 2011). As bulimic symptomology includes bingeing, it is associated to both restrained and emotional eating

as shown previously, so this paper attempted to see if dissatisfaction with life can be a strong predictor for these disordered eating behaviors. Satisfaction with life can also be linked to external eating, as seen in a study which includes 368 female students paired with their mothers at a South Eastern University in the United States. The paper demonstrated that 69.2% of the students wanted to lose weight, and found that greater life satisfaction which also related to satisfaction with parents and friendships, led to having a more positive body image, as well as lower levels of external eating behaviors or uncontrolled eating (Coccia & Darling; 2015). This prompted the author of this study to not only look at life satisfaction as a whole, but look at specific life domains that could predict disordered eating behaviors.

Specific Life Domains and Disordered Eating Behaviors

According to Zullig, Huebner, Patton, & Murray (2009), more specific life domains relevant to college students include: family, friends, school (university), self, and living environment. All these individual factors have an influence on a person satisfaction with life overall.

In a study which involved 723 male and female college students from Miami University, specific life domains were evaluated in relation to disordered eating. The domains of satisfaction with physical appearance and with self were determined to be the most strongly related to disordered eating behaviors and weigh perception among college students. Satisfaction with friendships was related to binge eating behavior only, and satisfaction with university or school was associated with how weight influences feelings about self as well as feelings to lose weight. Satisfaction with family was linked to efforts of losing weight such as taking dietary supplements and dieting (Matthew, Zullig, Ward, Horn, & Huebner; 2012).

It is important to note that most data including life satisfaction involve female rather than male participants. This was explained by Matthews and colleagues (2012) where the higher levels of poor eating behaviors/weight perceptions in females (also seen in most studies mentioned in this article) could be due to the fact that it has been shown that females report lower global Life satisfaction (satisfaction with life as a whole) than males. Therefore, this study aimed to look at these specific life satisfaction domains as contributors of disordered eating behaviors in both male and female university students in Lebanon as this has not been studied yet in our region.

Hypotheses

Based on the above discussed literature, the following hypotheses were examined:

1. Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict restrictive eating in Lebanese university students.
2. Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict emotional eating in Lebanese university students.
3. Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict external eating in Lebanese university students.
4. Female Lebanese university students score higher on a) restrictive, b) emotional and c) external eating than male Lebanese students.

Chapter 3

Method

This chapter comprises the research methodology that was used to carry out this study. It includes the description of the sample population, the detailed description of the materials used, the procedure used to administer the tests, an explanation of the data analysis and finally, the ethical considerations that were taken into account.

Participants

Convenience purposive sampling was used to select the participants for this study. Due to proximity and availability, the students selected were from Haigazian University, which is the university that the researcher attends. Regarding the sample size for this study, Tabachnick and Fidell (2013) recommended that a sample size N should be equal to or larger than 50+8m for testing multiple correlation, or equal to or larger than 104+m for testing individual predictors, where m is the number independent variables. In this study, we had 10 independent variables (body dissatisfaction, upward social comparison, downward social comparison, life satisfaction of family, friends, university, yourself, where you live, overall, and gender), so m is 10. Since we were interested in conducting multiple correlation as well as multiple regression, we calculated N and chose the larger sample size estimate (50+8*10= 130 participants). Therefore, the sample for this study consisted of 130 participants. There were all Lebanese University students. The age of the participants ranged as following, 90% were between the ages of 18-24 with the other 10% being between the ages 25-26 and only one participant aged 28. There were 62% female and 38% male university students. The participants were 70% single, 23% in a relationship, 6% married, and 1% divorced. 91% of students were still living with their families, and 27% had a

full-time job. The rest were 48% unemployed and 25% working part time. 62% of participants were in their first or second year of university, while 38% were in their third year or more. The BMI of the participants showed 73% were of normal weight, while 20% were either overweight or obese, and 6% were underweight. One participant decided not to disclose their weight, and so their BMI was not calculated. All participants were in a predominantly English-speaking institution since the surveys were in English.

Materials

The first section of the questionnaire package included information about the researcher, the purpose of the study and the rights, as well as risk and benefits for the participants. The second form is a participation consent form with a signature (Appendix A). If a student was under 18, it would be for their parents or guardian to give consent. In this study, there was no participant under the age of 18. The next section was the Demographics Sheet (Appendix B). Names were not required; participants needed to include their age, gender, height in centimeters (cm), and weight in kilograms (kg). Height and weight were needed for the researcher to calculate the participants' BMI (Basic Metabolic Index) for the study. Marital Status (single, relationship, married, divorced, widowed), living arrangements (with family, without family), working situation (unemployed, part time, full time), and year in University (from first year to four and more) were also required. Four scales were then used for the questionnaires. These included: The Body Shape Questionnaire (BSQ) (Appendix C), the Physical Appearance Comparison Scale–3 (PACS-3) (Appendix D), the Brief Multidimensional Students' Life Satisfaction Scale- College Version (BMSLSS-C) (Appendix E), and the Dutch Eating Behavior Questionnaire (DEBQ) (Appendix F). The questionnaires were all in English, as Haigazian is an English-speaking University; the time taking the tests was on average 15 minutes.

Body Shape Questionnaire short form (BSQ-16B)

The BSQ is a 34 item self-report 6-point Likert type scale measure of the body shape preoccupations typical of bulimia nervosa and anorexia nervosa (Cooper, Taylor, Cooper, & Fairburn; 1986). According to Cooper (1986), those who independently declared themselves as concerned about weight and shape had significantly higher BSQ scores than those who were unconcerned about such matters. Similarly, community "cases" of bulimia nervosa were found to have significantly higher BSQ scores than "non-cases." An approved short form that comprises to 16 items. Participants must answer each item by circling a number from 1 to 6 with the numbers respectively representing: never, rarely, sometimes, often, very often, always. Upon scoring of the BSQ and adding all the points together, a score less than 38 means ''no concerns with shape''. A score of 38 to 51 means ''mild concern with shape''. A score of 52 to 66 means ''moderate concern with shape'', and a score of 67 and above means ''marked concern with shape''.

Physical Appearance Comparison Scale-3 (PACS-3)

PACS-R was revised to examine aspects of comparisons with relevance to body-image and eating outcomes. Specifically, the measure was modified by Shaefer and Thompson (2018) to examine (a) dimensions of physical appearance relevant to men and women (i.e., weight shape, muscularity, and overall physical appearance), (b) comparisons with proximal and distal targets, (c) upward versus downward comparisons, and (d) the acute emotional impact of comparisons. This questionnaire includes two parts. The first part scores upper physical appearance comparison scale (UPACS) and comprises of 10 items. The second part scores downward physical appearance comparison scale (DACS) and it comprises of 8 items. The

participants must answer each item in a Likert type scale with a number from 1 to 5, respectively meaning: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree.

Brief Multidimensional Students' Life Satisfaction Scale- College Version (BMSLSS-C)

The BMSLSS-C consisted of six items for each of the 5 life satisfaction and global life satisfaction and a 5 point Likert scale. The five items in question are: Family, Friends, School (in this case University), Self, and Living Environment. For each of these items, the participant would put a check under ''Very dissatisfied'', ''somewhat dissatisfied'', ''Neither satisfied nor dissatisfied'', ''Somewhat Satisfied'', or ''Very satisfied''.

Dutch Eating Behavior Questionnaire (DEBQ)

The DEBQ is an assessment of restrained, emotional, and external eating behaviors. Each of the items are on a 5 point Likert scale: 1 (never), 2 (almost never), 3 (sometimes), 4 (often), 5 (very often). There are 33 items overall; 10 items for restrained eating, 13 items for emotional eating, and 10 items for external eating. Each of the three eating behaviors are to be scored separately.

Procedure

Before administering the pilot study, the researcher applied for IRB clearance from the Ethics Committee at Haigazian University and was granted approval to proceed. First, a pilot study was conducted to determine whether the scales were reliable or not. 20 Lebanese University students fluent in English were approached in order to fill the questionnaires and sign the consent forms. After the researcher introduced himself, the study was explained to the participants as well as their ethical rights, and estimate time of the questionnaires. All the

participants finished the whole survey package without having any clarification question to the researcher. After that, the scores were inserted on SPSS 25. The Cronbach alpha results were as follows: Body Shape Questionnaire $\alpha = 0.92$, Upper social comparison scale $\alpha = 0.928$, Downward social comparison scale $\alpha = 0.961$, Dutch eating behavior questionnaire (restrictive) $\alpha = 0.922$, DEBQ (emotional) $\alpha = 0.912$, DEBQ (external) $\alpha = 0.844$, Life satisfaction scale $\alpha = 0.623$ (but it is a single item scale which means they are not related to each other, unlike the other scales where all items measure the same thing) (See Table 1)

Convenient sampling was then used to collect the data for the actual study. The participants were approached on the campus of Haigazian University, where the researcher introduced himself and gave details on the purpose of the study. The ethical considerations of the study were also discussed by explaining that this survey is not mandatory, the anonymity of the participants is respected and completely confidential and that the surveys will only be at the hands of the researcher. The participants that wished to proceed, were given a consent form individually as well as the, demographics sheet, and finally the questionnaires. The researcher was available for questions if the participants had any clarifications regarding the surveys.

After the completion of gathering all the data and surveys, the information was put on SPSS 25 for statistical analysis. Multiple regression analysis and t-test were used to test the proposed hypotheses.

Table 1

Pilot's Cronbach's Alpha for the Body Shape Questionnaire, Upper Physical Appearance Comparison Scale, Downward Physical Appearance Comparison Scale, Brief Multidimensional Students' Life Satisfaction Scale- College Version, Dutch Eating Behavior Questionnaire (restrictive, emotional, external subscales).

	Previous Cronbach's Alpha	Pilot Cronbach's Alpha
BSQ	0.93	0.92
UPACS	0.94	0.93
DACS	0.92	0.96
Life Satisfaction	0.80	0.62
DEBQ – Restrictive	0.92	0.92
DEBQ – Emotional	0.96	0.91
DEBQ – External	0.84	0.84

Ethical Considerations

The researcher applied for IRB clearance from the Ethics Committee at Haigazian University and was granted approval to proceed. The researcher informed all participants about the purpose of the study, and their rights to privacy with no need to mention their names at any part of the forms or surveys. All participants signed the consent forms and preferred not to add their names. They participated willingly and suggested that the forms were easy and simple enough to understand and complete.

Chapter 4

Results

The purpose of this study was to evaluate a number of independent variables, namely, body satisfaction, social comparison, life satisfaction, and gender in relation to three separate dependent variables, restrictive, emotional, and external eating. In this chapter, I will include the reliability findings, then move on to test the proposed hypotheses as well as any additional findings by using the Statistical program SPSS version 25, for data analyses.

Reliability Testing

Reliability testing was done using SPSS 25. Cronbach's alpha was calculated to determine the internal consistency of the different scales used. The reliability coefficients of the current study are generally similar to those of the previous studies **(see Table 2)**

Table 2

Cronbach's Alpha for the Body Shape Questionnaire, Upper Physical Appearance Comparison Scale, Downward Physical Appearance Comparison Scale, Brief Multidimensional Students' Life Satisfaction Scale- College Version, Dutch Eating Behavior Questionnaire (restrictive, emotional, external subscales).

	Previous Cronbach's Alpha	Current Cronbach's Alpha
BSQ	0.93	0.94
UPACS	0.94	0.94
DACS	0.92	0.95
Life Satisfaction	0.80	0.8
DEBQ – Restrictive	0.92	0.95
DEBQ – Emotional	0.96	0.95
DEBQ – External	0.84	0.83

Descriptive Analysis

Descriptive Analysis in SPSS showed that the participants consisted of 49 males (37.7%) and 81 females (62.3%). The ages were between 18 to 28 with a mean of 20.91. Most students' BMI were within normal range with 73.1%. Most students were single (70%), lived with their parents (91.5%), and were unemployed (47.7%) with an added 25.4% working part time. Basic descriptive statistics for all study variables of interest are presented in Table 3.

Table 3

Descriptive Statistics for study variables

Variables	Range	Mean	Standard Deviations
Body Shape Questionnaire (categories)	3	2.02	1.100
Upper social comparison	40	28.99	10.136
Downward social comparison	32	17.67	7.316
Life Satisfaction – Family	4	3.92	1.128
LS – Friends	4	3.91	.96
LS – University	4	3.45	1.086
LS – Yourself	4	3.78	.975
LS - Where you live	4	3.42	1.251
LS – Overall	4	3.69	.979
DEBQ - Restrictive	39	28.63	10.178
DEBQ - Emotional	52	38.11	12.043
DEBQ – External	31	33.64	6.144

Hypotheses Testing

Hypothesis 1: Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict restrictive eating in Lebanese university students.

In order to test this hypothesis, a regression analysis was done. As can be seen in Table 4 below, the independent variables chosen in the regression analysis contribute by 60.5% to restrictive eating.

Looking at beta values and values of significance (see Table 4), body dissatisfaction contributed to restrictive eating by 62.2% with a significance value of p= 0.000. Upper social comparison contributed to restrictive eating by 27.3% with a significance value of p= 0.002. Dissatisfaction with oneself also contributed to restrictive eating by 16.1% with a significance value of p= 0.045. This meant that the hypothesis is partially true with body dissatisfaction, upper social comparison, and self-satisfaction predicted restrictive eating behaviors, while satisfaction with friends and family did not.

Table 4

Regression Coefficients of restrictive eating as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	-3.535	5.276		-.670	.504
	Gender	2.344	1.245	.111	1.882	.062
	BSQ Categories	5.774	.721	**.622**	8.013	**.000**
	UPACS Total score	.275	.088	**.273**	3.136	**.002**
	DACS Total score	.062	.093	.044	.660	.511
	How satisfied or dissatisfied are you with your family life?	.575	.684	.064	.841	.402
	How satisfied or dissatisfied are you with your friendships?	1.059	.717	.100	1.477	.142
	How satisfied or dissatisfied are you with your university experience?	.390	.633	.042	.617	.538
	How satisfied or dissatisfied are you with yourself?	1.686	.831	**.161**	2.030	**.045**
	How satisfied or dissatisfied are you with where you live?	-.468	.592	-.057	-.790	.431
	How satisfied or dissatisfied are you with your life overall?	-1.307	.920	-.126	-1.420	.158

R^2= .636 and Adjusted R^2= .605

Hypothesis 2: Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict emotional eating in Lebanese university students.

In order to test this hypothesis, a regression analysis was done. As can be seen in Table 5 below, the independent variables chosen in the regression analysis contribute by 19.2% to emotional eating.

Looking at beta values and values of significance (see Table 5), dissatisfaction with one's family contributed to emotional eating by 21.6% with a significance value of p= 0.048. This meant that the hypothesis is partially true with family satisfaction predicting emotional eating behaviors, while body dissatisfaction, upper social comparison, friends and self-satisfaction did not.

Table 5

Regression Coefficients of emotional eating as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	33.229	8.919		3.726	.000
	Gender	2.605	2.105	.105	1.238	.218
	BSQ Categories	1.762	1.218	.161	1.447	.151
	UPACS Total score	.253	.148	.212	1.703	.091
	DACS Total score	-.053	.158	-.032	-.338	.736
	How satisfied or dissatisfied are you with your family life?	-2.314	1.156	**-.216**	-2.002	**.048**
	How satisfied or dissatisfied are you with your friendships?	.006	1.211	.001	.005	.996
	How satisfied or dissatisfied are you with your university experience?	1.004	1.070	.091	.938	.350
	How satisfied or dissatisfied are you with yourself?	.642	1.404	.052	.457	.648
	How satisfied or dissatisfied are you with where you live?	.088	1.000	.009	.088	.930
	How satisfied or dissatisfied are you with your life overall?	-1.760	1.556	-.143	-1.131	.260

R= .255 and Adjusted R^2= .192

Hypothesis 3: Body dissatisfaction, upper social comparison, life satisfaction with family, self, and friends, predict external eating in Lebanese university students.

In order to test this hypothesis, a regression analysis was done. As can be seen in Table 6 below, the independent variables chosen in the regression analysis contribute by 5.4% to external eating.

Looking at beta values and values of significance (see Table 6), upper social comparison contributed to external eating by 27.2% with a significance value of p= 0.046. This indicated that the hypothesis is partially true with upper social comparison predicting external eating behaviors, while body dissatisfaction, friends, family and self-satisfaction did not.

Table 6

Regression Coefficients of external eating as the dependent variable

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	18.972	4.884		3.884	.000
	Gender	.231	1.153	.018	.201	.841
	BSQ Categories	.382	.667	.069	.573	.568
	UPACS Total score	.164	.081	**.272**	2.018	**.046**
	DACS Total score	.103	.086	.123	1.188	.237
	How satisfied or dissatisfied are you with your family life?	1.082	.633	.200	1.708	.090
	How satisfied or dissatisfied are you with your friendships?	.046	.663	.007	.069	.945
	How satisfied or dissatisfied are you with your university experience?	.869	.586	.155	1.483	.141
	How satisfied or dissatisfied are you with yourself?	.857	.769	.136	1.115	.267
	How satisfied or dissatisfied are you with where you live?	-.283	.548	-.058	-.517	.606
	How satisfied or dissatisfied are you with your life overall?	-.752	.852	-.121	-.883	.379

R= .128 and Adjusted R^2= .054

Hypothesis 4: Female Lebanese university students score higher on a) restrictive, b) emotional and c) external eating than male Lebanese students.

In order to investigate this hypothesis, Independent T-tests were conducted to check for gender differences in restrictive eating, emotional, and external eating. Female participants engaged in more restrictive eating (M= 30.5, SD= 10.4) compared to Males (M= 25.4, SD= 9). Therefore, there were significant gender differences in restrictive eating with t= -2.828 and p= 0.005 (See Table 7). Thus, hypothesis 4 was partially confirmed that females score higher in restrictive eating than males, but there are no gender differences for emotional and external eating.

Table 7

Gender mean differences and t-tests on DEBQ (restrictive, emotional, external)

	Males n=49		Females n=81			
	Mean	SD	Mean	SD	t	Sig. standard
DEBQ Restrictive	25.47	9.023	30.54	10.41	**-2.82**	**0,005**
DEBQ Emotional	36.31	12.449	39.20	11.734	-1.331	.186
DEBQ External	33.24	6.328	33.88	6.059	-.587	.572

Exploratory Findings

It is important to note that independent T-tests were also run to check for gender differences in body dissatisfaction, upper social comparison, and self-satisfaction. The reason for this is to better understand the results of this study which have already shown gender differences where more females engaged in restrictive eating behaviors than males. Hence, understanding the gender differences among the independent variables may help us better interpret these results.

Results showed that the only strong significant difference was in body dissatisfaction among genders with t= -2.301 and p= 0.023 where Female participants showed higher levels of body dissatisfaction (M= 2.19, SD= 1.16) compared to Males (M= 1.73, SD= 0.93). These results can be seen in Table 8 below.

Table 8

Table of Gender Mean Differences for BSQ, upper social comparison, and self-satisfaction

	Males n= 49		Females n= 81			
	Mean	SD	Mean	SD	t	Sig. standard
BSQ	1.73	.930	2.19	1.163	**-2.301**	**.023**
Upper social comparison	28.23	9.2	29.44	10.6	**-.657**	**0.5**
Self-satisfaction	3.8	.912	3.77	1	**.172**	**.296**

Chapter 5
Discussion

The present study aimed at examining the predictors of disordered eating behaviors, specifically restrictive, emotional, and external eating in Lebanese university students. The studied independent variables were body dissatisfaction, social comparison, life satisfaction, and gender. This chapter is a discussion of the results of our study.

The first hypothesis stated that body dissatisfaction, upper social comparison, family, friends, and self-satisfaction are predictors of restrictive eating in Lebanese university students. The hypothesis was partially confirmed with body dissatisfaction, upper social comparison, and satisfaction with self only (not family and friends) as predictors of restrictive eating behaviors. Regarding the body dissatisfaction part as a predictor in our study, our finding is in line with a recent research by Haddad et. al (2019) who showed that body dissatisfaction was higher in patients following diet and taking measures to lose weight, compared to those who did not. . Other studies have also shown that a low body satisfaction is a risk for restrictive diet and unhealthy food intake (Zarychta, Chan, Kruk, & Luszczynska; 2017;Quick & Byrd-Bredbenner; 2012). This is also in line with previous research by Stice (2001) which showed that individuals with high shape and weight concerns measured their self-worth in terms of appearance, and placed great importance on exerting control over their bodies by using dietary restraint to pursue an ultra-slender body type (Stice, 2001).

Moreover, regarding the upper social comparison as a predictor in our study, we can refer to other studies that have also shown that comparing one's body may predict disordered eating behaviors, more specifically restriction attempts in eating; in addition, more frequent body

comparisons could also predict thoughts about restriction (Fitzsimmons et. al; 2015, Gilbert & Meyer; 2003). Finally, the satisfaction with self as a predictor in our study is also in line with several studies showing low self-esteem as a significant psychological factor and predictor of the initiation of disordered restrictive eating (Jacobi et. al; 2011, Haynos et. al; 2017). Further, research has also shown that low self-esteem was significantly associated with the initiation of disordered restrictive eating (Haynos, Watts, Loth, Pearson, and Neumark-Stzainer; 2016). This could indicate that students could engage in restrictive eating behaviors to feel better about themselves Additionally, Nakhle (2018) has shown that wanting to be thin can affect self-esteem in a Lebanese population, and that exposure to media was related to this drive for thinness. It makes sense then that friends and family were not predictors of restrictive behavior, as it seems like wanting to lose weight comes from an inner drive which could be more affected from unrealistic models than the friends or family we have. Therefore, it was not surprising to see that body dissatisfaction, upper social comparison, and satisfaction with self, as predictors of restrictive eating in our region.

The second hypothesis stated that body dissatisfaction, upper social comparison, family, friends, and self-satisfaction were predictors of emotional eating in Lebanese university students. While the hypothesis was partially confirmed with family satisfaction predicting emotional eating behaviors, body dissatisfaction, upper social comparison, self and friend's satisfaction were not. These results are also in line with research by Hodson (2005) that showed that abuse, neglect, disconnection, or dissatisfaction from family can predict outcomes of disordered eating for individuals, most namely bulimic behaviors which are in relation to emotional eating. In addition, another study has shown that emergence of emotional eating was found to be related with inadequate parenting practice (Van Strien et. al; 2010). This is not surprising since it has

been shown by Kalavana (2010) that family climate is significantly related to both healthy and unhealthy eating, and family life is considered very important in cultures such as Lebanon (Kalavana, Maes, & De-gucht; 2010). An interesting research by Topham et. al (2011) on parenting styles showed that children of more authoritative mothers or from more emotionally responsive families were less likely to report eating in response to negative emotions (emotional eating). This shows the impact a family can have on one's eating behavior and would be interesting to further investigate in future studies to see what parenting styles could have contributed to emotional eating in the Lebanese population. In Lebanese and Arab culture in general, people show love through food, and binge eating has been found to be prevalent in our community, which has been linked to emotional eating. This could show how body dissatisfaction, upper social comparison and self-satisfaction did not predict emotional eating, because it is a behavior the general public is accustomed to, and so in this case, unlike restrictive eating, emotional eating can be more of a response to external stimuli (such as the family).Therefore, it made sense with our findings that satisfaction with family life predicts emotional eating.

The third hypothesis stated that body dissatisfaction, upper social comparison, family, friends, and self-satisfaction were predictors of external eating in Lebanese university students. While the hypothesis was partially confirmed with upper social comparison predicting external eating behaviors, body dissatisfaction, self and friend's satisfaction were not. . Research by Fitzsimmons et. al (2015) confirms that comparisons prospectively predicted engagement in disordered eating behaviors such as binge eating. Other research has also shown that more frequent upward body comparison was associated with greater disordered eating behavior including binge eating frequency, and since external eating has been linked to binges, it not

surprising that social comparison predicts external eating (Pinksavage, Arigo, and Shumacher; 2014). Unlike emotional eating, results showed that family life satisfaction did not affect external eating which could be due to the fact that eating for the sake of social purposes or entertainment could be rooted in this Lebanese culture and reinforced within the close- knit social system (Zeeni et. al, 2013), and is thus not a disordered behavior, but the norm. In this case, body dissatisfaction and self-satisfaction also did not predict external eating which makes sense because a person dissatisfied with themselves and their body, were previously shown to engage in dieting behaviors, and external eating would come in the way of that.

The fourth hypothesis stated that female Lebanese university students developed more restrictive, emotional, and external eating, in comparison to males. The hypothesis was partially confirmed in our study for restrictive eating only; in other words, more female university students engaged in dieting behavior to restrict food intake in order to lose or maintain weight than male university students. This is in line with other research that concluded that females engage in more disordered eating and dieting behaviors than males (Yahia et. al, 2011; Matthews-Ewald, 2012). In our study, there were no significant gender differences for emotional and external eating. That is why, the researcher tried explaining the differences between restrictive eating between the genders by looking at gender differences within the other independent variables. More specifically, the T-tests showed that female Lebanese university students are more likely to have body dissatisfaction than male students. This is in line with other research that showed females reporting a higher percentage of body image concerns in university (El Ansari et. al, 2014). Furthermore, other research by Schulte and Thomas (2013) have also echoed these findings with female college students scoring higher in body dissatisfaction than males. In conclusion, this difference in body satisfaction between the males and females in

Lebanon could explain why females, in comparison to males, opt to engage in more restrictive eating in order to attain their desired goals.

Clinical Implications

Research done on disordered eating behaviors in the Arab world is quite scarce indeed. The main difference in this study is that it looked at social comparison as well as different aspects of life satisfaction domains as major contributors in the development of these unhealthy eating behaviors.

As for clinicians and mental health workers, findings in this study can be of great importance. As can be seen, satisfaction with life, and satisfaction with family could affect eating behaviors in students such as restrictive and emotional eating. Clinicians can work to build their clients' self-esteem, help them develop healthier coping skills besides restricting food intake by working on self-loving techniques and strategies to be more satisfied with their own bodies. A good therapeutic practice could be Cognitive Behavioral Therapy. CBT could help students focus on their thoughts about the self and about eating. The clinician's objective would be to help the students challenge their thoughts, which in turn alter their emotion and then change their behavior. For example, if a student believes he needs to look thinner in order to be accepted, which leads him to restrict food intake, the therapist would challenge that idea, and look for alternative behavior to reach their goals. The therapist in that instance must promote healthy living, instead of dieting. Psychoeducation also helps clinically. The students need to see the cycle of disordered eating behavior, where restricting food can lead to binges which can then lead to eating disorders.

Including family members in the treatment could help in decreasing emotional eating, which is eating in response to negative emotions. As suggested by the results of this research, dissatisfaction with family life predicts emotional eating in students. For this, the clinician may work with the family to resolve any issues they are facing in their daily lives. One of the strategies would be improving the language of parents towards their children, not using terms such as 'fat', or 'you gained weight', or 'stop eating', but developing healthier communication between the family members. Research has illustrated the importance of family therapy, showing that parental criticism and insecure attachment are predictors of treatment outcome, meaning if families are engaged in the therapeutic process where they learn how to better address or have a better relationship with their children with eating disorders, it will result in better outcomes for the patients (Eisler et. al; 2007, Tereno et. al; 2008)

Results have also shed light on females having higher scores of body dissatisfaction than males and engaging in more restrictive eating. This could help the clinicians in addressing these issues in therapy. This could mean bringing up body issues for females and the possible pressure that they might feel to be a certain weight within society which may lead to shame. Opening this dialogue, and working on self-esteem, self-love, and shame would help female students in feeling more empowered in loving themselves and their bodies and not needing to resort to restricting food intake. In this case, research has suggested that shame in terms of body image or eating behaviors was lower in treatment after periods of increased self- compassion (Gale, Gilbert, Read, & Goss; 2014).

Limitations and Future Research

There were a number of limitations in this study that should be addressed. The first limitation was related to the sample size; not more than 130 participants took part in this study. Hence, results could have been more accurate if the sample size was larger. It should also be noted that results in this study could not be generalized to the whole Lebanese student population due to the fact that only students in Beirut fluent in English were eligible to participate in the study. Results could have been different had they been also offered to Arabic speaking universities in different areas of the country.

The final limitation that concerned us is associated with the time of data collection. Our data were collected during the fall of 2019, when the October 2019 movement and protests took place in Lebanon. During those months many Lebanese people were either staying home due to the crisis or involved in the civil demonstrations that were taking place at the time. In other words, this made it more difficult to get more participants. Numerous further studies could help explain and build on some of the findings in this research. First, to have more information on how dissatisfaction with family life leads to emotional eating, future investigators should see if there is a specific parenting style that may contribute to this (authoritarian, dismissive, authoritative). Second, since results showed that females have higher body dissatisfaction than males in the Lebanese population, it would be interesting to investigate the sociocultural pressures females feel in looking a certain way. Third, since there was a relationship between upper social comparison and the disordered eating behaviors, future investigators should see what sort of comparisons do students in Lebanon engage in. This could be comparisons to the media (looking at models on social media or movie actors), or comparisons to peers.

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Appendix A

Participant information letter

Dear Ms./Mr.

I am Karim Khalil, a student at Haigazian University from the Department of Social and Behavioral Sciences. I am currently carrying out a research study titled Contributions of Body Dissatisfaction, Social Comparison, Life Satisfaction, and Gender on Disordered Eating Behaviors in Lebanese University Students advised by Dr. Hanine Hout.

You are being asked to take part in this study since to help me gather the necessary information for the purpose of my Master's thesis project.

Kindly read the below information to decide whether you would like to participate in this research study.

Purpose of the Research Project

Research on disordered eating behaviors is still limited in the Middle East region. According to Eisenberg (2011), it is important to address eating pathology in college populations due to the prevalence of body image and eating behavior concerns. The information gathered on predictors of disordered eating could help in the development of effective intervention strategies in a therapeutic context. Moreover, intervention for this type of problem is scarce in Lebanon. The more knowledge there is about predictors of disordered eating behaviors, the more therapy can be geared to help with these type of in a Lebanese college sample.

What will I be asked to do?

- If you choose to participate in this research study, you will be asked to fill in a questionnaire. Your participation will involve completing surveys that entails statements that you will have to rate based on agreement, and a demographic form for approximately 30 minutes.

Participation in this project is voluntary. You are free to withdraw anytime without having to give any reason for your withdrawal.

What are my rights?

- Participation in this study is completely voluntary, anonymous and confidential. Your name or any other identifying information will not be asked. The information gathered will be accessed by professionals for the purpose of the study and for completion of the study.
- Data you provide along with data from all participants in the present research will be stored in aggregate in a in a locked cabinet, and on the personal computer of Mr. Karim Khalil in a password protected file. The data will be analysed and reported in aggregate. Only the principle investigators of this study will have access to the compiled data which will be stored for a period of 10 years post data. During this time, you have the right to inspect the data.

- You have the right to withdraw your consent or discontinue participation at any time for any reason. Your decision to refuse participation or withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way affects your relationship with Haigazian University.
- This research study has been reviewed and has received clearance from the Haigazian University ethics committee and Dr. Hanine Hour. If you have any further concerns about your rights as a research participant, please, do not hesitate to contact Mr. Karim Khalil, 76/765381.

What are the risks and benefits of participation?

- Participation in this study does not involve any physical risk or emotional risk to you beyond the risks of daily life
- You will receive no direct benefits from participating in this research; however your participation does help researchers better understand predictors of disordered eating behaviors in a Lebanese University sample.

Contact information
If you have any questions or concerns about the research you may contact:

Researcher:
Karim Khalil
76/765381
Haigazian University
Khalil_kar@hotmail.com

Advisor:
Dr. Hanine Hout
01/349230 ext. 331
Haigazian University
Hanine.hout@haigazian.edu.lb

Participant consent

Body Dissatisfaction, Social Comparison, Life Satisfaction, and Gender as Predictors of Disordered Eating Behaviors in Lebanese University Students

Please read the following statements and place a check mark in the boxes adjacent to them.

☐ I have volunteered to participate in this research project conducted for purposes of study. My participation is voluntary and does not involve payment of any kind.

☐ I agree to allow my son/daughter to participate in this research project conducted for purposes of study. My decision is voluntary and does not involve payment of any kind.

☐ I know that I can choose to withdraw from participation any time without any penalties or consequences whatsoever. I also hold the right to decline to respond to any question(s) that I may feel uncomfortable with.

☐ My participation may involve answering a set of questionnaires of approximately 30 minutes.

☐ I have been assured that the researcher will maintain my identity securely confidential.

I have been assured that the information from this interview will be used for the purpose of academic study only.

☐ I have received the assurance that this research study has been duly reviewed and approved by the Faculty of Social and Behavioural Sciences at Haigazian University.

☐ I agree that the data gathered be kept in a secure location under the care of the study investigators for a period of a period of 5 years as per the regulations of the Faculty of Social and Behavioural Sciences at Haigazian University.

☐ I have read, listened and fully understand the explanation given to me. All my questions have been satisfactorily answered.

☐ I, therefore, choose to voluntarily participate in this research study.

☐ I have received a copy of this consent form co-signed by the investigator.

Participant consent		Investigator	
Date:	_____	Date:	_____
Name:	_____	Name:	_____
Signature:	_____	Signature:	_____

Appendix B

Demographics Sheet

Age _____

Gender _____

Weight (kg) _____

Height (cm) _____

Marital Status

- Single
- In a Relationship
- Married
- Divorced
- Widowed

Living with family

- Yes
- No

Working situation

- Unemployed
- Part time
- Full time

Years in University

- 1 year or less
- 2 years
- 3 years
- 4 years or more

Appendix C

BSQ-16B

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

	Never	**Rarely**	**Sometimes**	**Often**	**Very often**	**Always**
OVER THE PAST FOUR WEEKS:						
1. Have you been so worried about your shape that you have been feeling you ought to diet?	1	2	3	4	5	6
2. Have you been afraid that you might become fat (or fatter)?	1	2	3	4	5	6
3. Has feeling full (e.g. after eating a large meal) made you feel fat?	1	2	3	4	5	6
4. Have you noticed the shape of other people and felt that your own shape compared unfavorably?	1	2	3	4	5	6
5. Has thinking about your shape interfered with your ability to concentrate (e.g. while watching television, reading, listening to conversations)?	1	2	3	4	5	6
6. Has being naked, such as when taking a bath, made you feel fat?	1	2	3	4	5	6
7. Have you imagined cutting off fleshy areas of your body?	1	2	3	4	5	6

8. Have you not gone out to social occasions (e.g. parties) because you have felt bad about your shape? 1 2 3 4 5 6

9. Have you felt excessively large and rounded? 1 2 3 4 5 6

10. Have you thought that you are in the shape you are because you lack self-control? 1 2 3 4 5 6

11. Have you worried about other people seeing rolls of fat around your waist or stomach? 1 2 3 4 5 6

12. When in company have your worried about taking up too much room (e.g. sitting on a sofa, or a bus seat)? 1 2 3 4 5 6

13. Has seeing your reflection (e.g. in a mirror or shop window) made you feel bad about your shape? 1 2 3 4 5 6

14. Have you pinched areas of your body to see how much fat there is? 1 2 3 4 5 6

15. Have you avoided situations where people could see your body (e.g. communal changing rooms or swimming baths)? 1 2 3 4 5 6

16. Have you been particularly self-conscious about your shape when in the company of other people? 1 2 3 4 5 6

Appendix D

Social Comparison Scale

1: Strongly disagree. **2:** Disagree. **3:** Neutral. **4:** Agree. **5:** Strongly Agree

UPACS items

1. I compare myself to those who are better looking than me rather than those who are not.____

2. I tend to compare my own physical attractiveness to that of magazine models. ____

3. I find myself thinking about whether my own appearance compares well with models and movie stars. ____

4. At the beach or athletic events (sports, gym, etc.) I wonder if my body is as attractive as the people I see there with very attractive bodies. ____

5. I tend to compare myself to people I think look better than me. ____

6. When I see a person with a great body, I tend to wonder how I 'match up' with them. ____

7. When I see good-looking people I wonder how I compare to them. ____

8. At parties or other social events, I compare my physical appearance to the physical appearance of the very attractive people. ____

9. I find myself comparing my appearance with people who are better looking than me. ____

10. I compare my body to people who have a better body than me. ____

DACS items

11. When I see a person who is physically unattractive I think about how my body compares to theirs.

---

12. I tend to compare my body to those who have below average bodies. ____

13. At the beach, gym, or sporting events I compare my body to those with less athletic bodies. _

14. I compare myself to people less good looking than me. ____

15. I think about how attractive my body is compared to overweight people. ____

16. At parties I often compare my looks to the looks of unattractive people. ____

17. I often compare myself to those who are less physically attractive. ____

18. I tend to compare my physical appearance with people whose bodies are not as physically appealing. ____

Appendix E

Your Satisfaction with Life

Please place an 'X' in the <u>one</u> box that best indicates how satisfied or dissatisfied you <u>CURRENTLY</u> are with each item below. There is no right or wrong answer.

	HOW SATISFIED OR DISSATISFIED ARE YOU WITH...	Very Dissatisfi	Somewhat Dissatisfie	Neither Satisfied nor	Somewhat Satisfied	Very Satisfied
1.	Your family life	□	□	□	□	□
2.	Your friendships	□	□	□	□	□
3.	Your university experience	□	□	□	□	□
4.	Yourself	□	□	□	□	□
5.	Where you live	□	□	□	□	□
6.	Your life overall	□	□	□	□	□

Appendix F

Dutch Eating Behavior Questionnaire Items	Never	Almost never	Sometimes	Often	Very often
1. If you have put on weight, do you eat less than you usually do?					
2. Do you try to eat less at mealtimes than you would like to eat?					
3. How often do you refuse food or drink offered because you are concerned about your weight?					
4. Do you watch exactly what you eat?					
5. Do you deliberately eat foods that are slimming?					
6. When you have eaten too much, do you eat less than usual the following days?					
7. Do you deliberately eat less in order to not become heavier?					
8. How often do you try not to eat between meals because you are watching your weight?					
9. How often in the evening do you try not to eat because you are watching your weight?					
10. Do you take into account your weight with what you eat?					
11. Do you have the desire to eat when you are irritated?					
12. Do you have a desire to eat when you have nothing to do?					
13. Do you have a desire to eat when you are depressed or discouraged?					
14. Do you have a desire to eat when you are feeling lonely?					
15. Do you have a desire to eat when somebody lets you down?					
16. Do you have a desire to eat when you are cross?					
17. Do you have a desire to eat when you are approaching something unpleasant to happen?					
18. Do you have a desire to eat when you are anxious, worried or tense?					
19. Do you have a desire to eat when					

things are going against you or when things have gone wrong?					
20. Do you have a desire to eat when you are frightened?					
21. Do you have a desire to eat when you are disappointed?					
22. Do you have a desire to eat when you are emotionally upset?					
23. Do you have a desire to eat when you are bored or restless?					
24. If food tastes good to you, do you eat more than usual?					
25. If food smells and looks good, do you eat more than usual?					
26. If you see or smell something delicious, do you have a desire to eat it?					
27. If you have something delicious to eat, do you eat it straight away?					
28. If you walk past the baker, do you have the desire to buy something delicious?					
29. If you walk past a snack bar or a café, do you have the desire to buy something delicious?					
30. If you see others eating, do you also have the desire to eat?					
31. Can you resist eating delicious foods?					
32. Do you eat more than usual when you see others eating?					
33. When preparing a meal, are you inclined to eat something?					