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TURKISH ADAPTATION OF THE INTUITIVE EATING SCALE –2

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Turkish Adaptation of The Intuitive Eating Scale-2

Sezgisel Yeme Ölçeği – 2'nin Türkçe Adaptasyonu

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TABLE OF CONTENT

Title Page	i
Approval	ii
Acknowledgments	iii
List of Tables	vii
List of Appendices	viii
List of Figures	viii
Abstract	ix
Özet	x
Chapter 1. Introduction	1
1.1 Intuitive Eating	1
1.1.1 Unconditional Permission to Eat.....	1
1.1.2 Eating for Physical Rather Than Emotional Reasons	2
1.1.3 Reliance on Internal Hunger and Satiety Cues.....	2
1.1.4 Intuitive Eating and Physical Health	3
1.1.5 Intuitive Eating and Psychological Health	4
1.1.6 How Intuitive Eating Patterns are Lost.....	5
1.1.6.1 Objectification Theory	5
1.1.6.2 Parenting	7
1.1.6.2.1 Well-Intentioned Parental Restrictions ...	7
1.1.6.2.2 Effect of Parents' Eating Behaviors.....	7
1.1.7 Importance and Benefits of Intuitive Eating.....	8
1.1.7.1 Health at Every Size versus Dieting Approach	8
1.2 What is Non-Intuitive Eating?: Emotional Eating	9
1.2.1 Inadequate Affect Regulation	9
1.2.2. Escape Theory	9
1.2.3 Restraint Theory	10
1.3 Is Intuitive Eating an Anti-Thesis of Disordered Eating?	10
1.4. The Intuitive Eating Scale	11
1.5 The Intuitive Eating Scale-2	11

1.6 Present Study	12
1.6.1 Hypotheses.....	13
1.6.1.1 Study 1.....	13
1.6.1.2 Study 2.....	13
Chapter 2. Study 1	14
2.1 Method	14
2.1.1 Participants	14
2.1.2 Instruments	15
2.1.2.1 Informed Consent Form.....	15
2.1.2.2 Demographic Information Form.....	15
2.1.2.3 The IES-2.....	15
2.1.2.4 Turkish Version of the IES-2.....	17
2.1.2.5 Rosenberg Self-Esteem Scale	17
2.1.2.6 Maudsley Obsessive Compulsive Inventory ...	17
2.1.2.7 EAT-26.....	18
2.1.2.8 Social Physique Anxiety Scale	18
2.1.3 Procedure.....	18
2.2 Results	19
2.2.1 Descriptive Statistics.....	19
2.2.2 Exploratory Factor Analysis.....	22
2.2.3 Reliability.....	27
2.2.3.1 Internal Reliability.....	27
2.2.3.2 Test-Retest Reliability	27
2.2.4 Validity	27
2.2.4.1 Construct Validity	27
2.2.4.2 Criterion Validity.....	28
Chapter 3. Study 2: Confirmatory Factor Analysis of the IES-2.....	30
3.1 Method	30
3.1.1 Participants	30
3.1.2 Instruments	31
3.1.2.1 Informed Consent Form.....	31
3.1.2.2 Demographic Information Form	31

3.1.2.3 Turkish Version of the IES-2	31
3.1.3 Procedure.....	31
3.2 Results	32
3.2.1 Descriptive Statistics.....	32
3.2.2 Confirmatory Factor Analysis	32
Chapter 4. Discussion	39
4.1 Clinical Implications.....	44
4.2 Limitations and Suggestions for Future Research	45
Chapter 5. Conclusion	47
References.....	48
Chapter 6: Appendices	54

List of Tables

Table 1 - Descriptive Statistics for All Study 1 Variables.....	19
Table 2 - Means, Standard Deviations and Minimum-Maximum Values for Female Participants.....	20
Table 3 - Means, Standard Deviations and Minimum-Maximum Values for Male Participants.....	20
Table 4- Item-Factor Loadings of the IES-2	25
Table 5 - Correlations of the IES-2 Total Scores and the IES-2 Subscale Scores	28
Table 6 - Correlations of the IES-2 Scores, Maudsley Obsessive Compulsive Inventory, Rosenberg Self-Esteem Scale, Social Physique Anxiety Scale, EAT-26 and Participants' BMI.....	29
Table 7 - Descriptive Statistics for All Study 2 Variables	32
Table 8 – Goodness of Fit Indices for Various Statistical Models of CFA for the IES-2	33
Table 9 - Goodness of Fit Indices for Various Statistical Models of Second-Order CFA for the IES-2.....	34
Table 10 - Goodness of Fit Indices for Second-Order CFA for the IES-2 with Study 1's Sample Data	35
Table 11 - First and Second-Order CFA Values of the IES-2.....	36

List of Appendices

Appendix A: Demographic Information Form.....	55
Appendix B: Maudsley Obsessive-Compulsive Inventory, Checking and Ruminat ion Subscales	56
Appendix C: Rosenberg Self-Esteem Scale	57
Appendix D: Turkish EAT-26.....	58
Appendix E: Turkish Social Physique Anxiety Scale.....	59
Appendix F: The Turkish IES-2.....	60
Appendix G: The Modified Turkish IES-2 and Scoring Instructions ...	61

List of Figures

Figure 1 - Tylka and Sabik's (2010) combination of the tenets of objectification theory, social comparison theory and self-esteem.....	6
Figure 2- Mean Scores for Female Participants	21
Figure 3- Mean Scores for Male Participants	21
Figure 4 – Parallel Analysis of the IES-2 Data	23
Figure 5 - Path Diagram of Second-Order CFA of the IES-2	38

Abstract

The primary purpose of this study is to adapt the Intuitive Eating Scale-2, which was originally developed in the USA, to Turkish and to assess its reliability and validity in the Turkish population. The IES-2 was originally developed to contain 23 items and 4 subscales: Eating for Physical Rather Than Emotional Reasons (EPR), Unconditional Permission to Eat (UPE), Reliance on Hunger and Satiety Cues (RHSC) and Body-Food Choice Congruence (B-FCC). In the first study, an exploratory factor analysis was conducted to evaluate the factor structure of the Turkish IES-2 and it revealed a similar four-factor structure as in the original study. 2 items were omitted from the Turkish IES-2 due to low KMO value and low primary loading. Reliability and validity study was conducted with 264 people from the normal population. Results indicate that the Turkish IES-2 is a reliable and valid scale for the assessment of intuitive eating. In the second study, it was checked if the four-factor structure could be confirmed with a different sample of 271 participants through confirmatory factor analysis. Another aim of the second study was to check if the four factors of the IES-2 load on to a higher factor, intuitive eating. The results indicated that the data fit well and the four-factor structure was confirmed with a different sample. A second-order CFA revealed an overall acceptable fit and except for UPE, first-order factors loaded highly on to higher-order intuitive eating factor in the Turkish sample. Consequently, the results of the present study demonstrated that IES-2 is a valid and reliable instrument for adult population in Turkey. The Turkish IES-2 can be a useful tool for identifying individuals who do not have the ability to distinguish physical hunger from emotional hunger. The findings are discussed along with the limitations and clinical implications of the study and with suggestions for future research.

Özet

Bu çalışmanın amacı ABD’de geliştirilen Sezgisel Yeme Ölçeği-2’yi Türkçe’ye adapte etmek ve Türk popülasyonda geçerlik ve güvenilirlik analizlerini yapmaktır. SYÖ-2 orijinal halinde 23 madde ve 4 alt ölçeğe sahiptir: Duygusal Değil Fiziksel Sebeplerle Yeme, Yemeye Şartsız İzin Verme, Açlık ve Doygunluk İpuçlarına Güvenme ve Vücut-Yemek Seçim Uyumu. İlk çalışmada SYÖ-2’nin Türkçe versiyonunun faktör yapısını değerlendirmek için keşfedici faktör analizi uygulanmış ve orijinal çalışmadakine benzer bir şekilde dört faktörlü bir yapı bulunmuştur. Türkçe versiyonunda biri düşük KMO değeri ve biri kendi faktörüne düşük şekilde yüklenmesi sebebiyle iki madde çıkarılmıştır. Geçerlik ve güvenilirlik analizleri normal popülasyondan 264 katılımcı ile gerçekleştirilmiştir. Sonuçlar SYÖ-2’nin Türkçe versiyonunun sezgisel yemeyi ölçmede geçerli ve güvenilir bir ölçek olduğunu ortaya koymuştur. İkinci çalışmada 271 kişilik bir başka örnekleme dörtlü faktör yapısının iyi bir şekilde uyum gösterip göstermediğine doğrulayıcı faktör analizi yoluyla bakılmıştır. İkinci çalışmanın bir başka amacı SYÖ-2’nin dört faktörünün daha yüksek bir faktöre, sezgisel yemeye, yüklenip yüklenmediğini görmektir. Sonuçlar faktör yapısının bir başka örnekleme de yeterli şekilde uyduğunu ve ‘Yemeye Şartsız İzin Verme’ faktörü dışındaki faktörlerin Türk örnekleme sezgisel yemeye yüksek düzeyde yüklendiğini göstermiştir. Sonuç olarak bu çalışmanın sonuçları SYÖ-2’nin Türk yetişkin popülasyonda geçerli ve güvenilir bir ölçek olduğunu ortaya koymuştur. SYÖ-2’nin Türkçe versiyonu fiziksel açlığı duygusal açlıktan ayırt edemeyen bireylerin saptanması için faydalı bir araç olabilir. Bulgular, çalışmanın sınırlıkları, klinik çıkarımlar ve gelecek çalışmalar için öneriler tartışılmıştır.

CHAPTER 1: INTRODUCTION

1.1 INTUITIVE EATING

Until recently, eating behaviors were mainly classified as pathological and non-pathological. Most studies focused on how pathological eating behaviors developed, how these behaviors could be healed and how the researchers could measure and interpret them. However non-pathological eating behaviors do not necessarily have to be adaptive (Tylka & Wilcox, 2006) and studies on adaptive eating behaviors were underrepresented in the literature. Intuitive eating is one of the adaptive types of eating behaviors. It is mainly characterized as eating in response to physiological hunger and satiety cues, and not to emotional or external ones (Tylka, 2006). According to Tylka and Kroon Van Diest (2013) people who eat intuitively do not get preoccupied about food. Although they do care about taste, they mainly value their body's functioning in their food choices. They trust their internal cues about when, what and how to eat (Tylka & Kroon Van Diest, 2013).

Intuitive eating is a term that is used by several psychologist and nutritionists (Carper, Fisher & Birch, 2000; Tylka, 2006, Tribole & Resch, 1995). They claim that intuitive eating is adaptive since it mainly focuses on what the body needs and people who eat intuitively are in contact with their internal physiological states and they are not preoccupied with food (Tylka, 2006). According to these scholars, there are three central features of intuitive eating: (a) unconditional permission to eat, (b) eating for physical rather than emotional reasons, and (c) reliance on internal hunger and satiety cues.

1.1.1 Unconditional Permission to Eat.

According to Tribole and Resch, people who give themselves unconditional permission to eat do so as a response to their internal physiological hunger signals and eat the food they desire at a particular moment (Tribole & Resch, 1995). They do not perceive certain types of food as unacceptable and do not avoid them. They trust their bodies about when, what and how to eat (Tylka, 2006).

On the contrary people who restrict themselves about eating and have ‘conditions’ in their eating behaviors try to limit and control their eating, and get preoccupied about food (Polivy & Herman, 1999). Because of the restriction about food and the preoccupation that comes with it, the likelihood of conditional eaters to eat more than the intuitive eaters increases. In one study, researchers found out that restrained eaters break their restraint especially when they believe their previous meal was high in calorie and tasted good. The cognitive preoccupation is important in this overeating behavior since it is based on the perception of the restrained eaters (Woody, Costanzo & Liefer, 1981).

1.1.2 Eating for Physical Rather Than Emotional Reasons

People who eat intuitively depend on their physical cues. When they feel hungry, they eat and they do not take their emotions into account. Herman and Polivy proposed a boundary model to explain the difference between individuals who eat intuitively and who restrict themselves. People who do not diet have only two boundaries: hunger and satiety. When hungry they eat and when their body sends the signals of satiety they stop eating. This is not the case for people who restrict their eating since they have a third unnatural diet boundary (as cited in Tylka 2006). But when there is a rupture in this boundary, the eating behavior may get out of control and lose its connection with bodily signals. People who diet may eat ‘unpermitted’ food when their mood changes. This paves the way to eating in negative mood states (Costanzo, Reichmann, Friedman & Musante, 2001).

1.1.3 Reliance on Internal Hunger and Satiety Cues

Relying on internal hunger and satiety cues are inborn processes that all human beings have. Research has revealed that young children have an inner sense of balance about food. When they were given a low-energy or high-energy meal as the first course and then had the chance to choose from a variety of food, they chose high-energy or low-energy foods respectively, thus balancing their first course (Birch & Deysher, 1985). In another study, Birch, McPhee and Sullivan (1989) made children drink beverages that changed in caloric density in several different conditions and water in one

condition. Independent from the caloric density of the beverage, the children ate food that had fewer calories when compared to water condition (Birch, McPhee & Sullivan, 1989). These show that even young children balance their energy intake and have an innate compensation mechanism about food. However this process may change due to environmental reasons. Societal thin ideals or parenting practices regarding eating may be the two of many reasons; these will be elaborated on below. When society values dieting and being thin (Fredrickson & Roberts, 1997) or when parents interfere with their children's eating patterns with the concern that they cannot regulate their eating behaviors (Birch & Fisher, 1998), this innate mechanism disappears and people start to rely on external cues about eating.

1.1.4 Intuitive eating and physical health

Intuitive eating is based on physiological cues; therefore the body is in charge of eating decisions. If we consider that the body will intuitively try to balance its choices, intuitive eating is also expected to contribute to physical health. According to Gast, Campbell Nielson, Hunt and Leiker (2015) since intuitive eaters value their internal physiological mechanisms, they also engage in physical activity for their internal physiological needs rather than relying on external factors. In their study, they found that for intuitive eaters being physically active for intuitive eaters is part of the self-concept. Intuitive eaters engage in physical activity if they enjoy it and if it gives internal satisfaction. This is not the case for non-intuitive eaters: they mostly engage in physical activity because of external factors like pressure from society (Gast, Campbell Nielson, Hunt & Leiker, 2015).

The intuitive eating approach is mostly used in health-focused applications. Especially in obesity treatment calorie-restraining diet programs are not always successful and gaining the weight that was lost is common (Péneau, Ménard, Méjean, Bellisle & Hercberg, 2013). On the other hand intuitive eating is an innate mechanism and its main focus is not weight loss; it creates balance within the body. Thus, a new trend is blooming in the treatment of obesity: not focusing on weight loss and putting health at the center.

In one research, obese women were separated into two groups; diet and non-diet group. These groups were then compared in several aspects. Weight loss only occurred in the diet group. Despite this fact both the diet and non-diet groups improved in cholesterol, LDL, triglycerides and blood pressure. It cannot be claimed that weight-loss approaches are unhealthy since both of these groups improved (Bacon et al., 2002). At this point one may think that intuitive eating approaches and weight loss approaches do not differ in terms of creating physical health outcomes. Although this may be true, the real difference mostly shows itself in psychological health outcomes.

1.1.5 Intuitive eating and psychological health

According to Tylka (2006) intuitive eating is a highly adaptive phenomenon not only in the realm of nutrition but also in psychological well-being. She claims that women who eat more intuitively care less about societal thin ideals. With the increase of intuitive eating optimism, self-esteem and satisfaction with life also increase (Tylka, 2006). Bacon et al.'s (2002) study also examined how diet and non-diet groups differ in attrition and self-evaluation. The real difference was found here: while 42% of the diet group dropped out, only 8% of the non-diet group dropped out. Participants in the non-diet group showed significant improvement in scores on the Rosenberg Self-Esteem Scale (RSES) one year after the treatment. On the other hand participants in the diet group showed an immediate improvement in RSES; however this improvement was not maintained. 'The program made me feel better about myself' was validated by 93% of the non-diet group and only 51% of the diet group. Also the dropouts of the diet group mostly indicated that they felt like they were failing the program. This was not the case for dropouts from the non-diet group (Bacon et al., 2002). As it was said above, although these two groups did not differ much with regards to physical health, the difference was huge with regards to psychological health. Intuitive eating approaches are not programs to succeed or fail; they signify mainly a return to the innate mechanism that all

human beings have when they are born. As a result, returning to this innate mechanism has much better psychological outcomes than the programs that impose restraint and boundaries to natural mechanisms.

1.1.6 How intuitive eating patterns are lost

No infant in the world diets. Human beings are born with intuitive eating patterns. In an environment where unconditional acceptance lacks and imposition of rigid rules on eating behavior exists this tendency towards intuitive eating may disappear for some individuals (Carper, Fisher & Birch, 2000). The contemporary life style that is characterized by food advertisements, dieting industry and restaurants that serve large portions may be examples of non-accepting environment (Van Dyke & Drinkwater, 2013). When people start dieting as a result of a non-accepting environment they may forget to rely on their bodily signals and may lose touch with their hunger and satiety cues (Birch & Fisher, 2000). Below, two of the possible processes that contribute to the disappearance of intuitive eating patterns in most individuals are specified.

1.1.6.1 Objectification Theory

According to objectification theory, starting in young ages, women start to perceive themselves through the lens of others (Fredrickson & Roberts, 1997). If the observers' perspective is negative, women also start to perceive themselves in a negative way (Augustus-Horvath & Tylka, 2011). In the objectification process, the body is perceived as a separate entity and the rest of the person is not taken into consideration. Experiences of objectification lead women to internalize this third person gaze and this may pave the way for 'self-objectification' (Fredrickson & Roberts, 1997). The self-objectification process may lead to increased body shame, decreased awareness of internal states, increased appearance anxiety (Mercurio & Landry, 2008), and even eating disorders (Augustus-Horvath & Tylka, 2011); but even if things do not get that serious, most women become chronic dieters to achieve the thin ideals of society.

When a person makes a comment on or makes fun of the physical appearance, weight and body of another person, this gives the message that

the person does not fit the beauty standards of the society, that she should try to achieve that standard and that right now she is inadequate since she does not fit this standard (Tylka & Sabik, 2010). These processes contribute to self objectification and give a sense of inadequacy. Tylka and Sabik (2010) elaborated their idea with a figure:

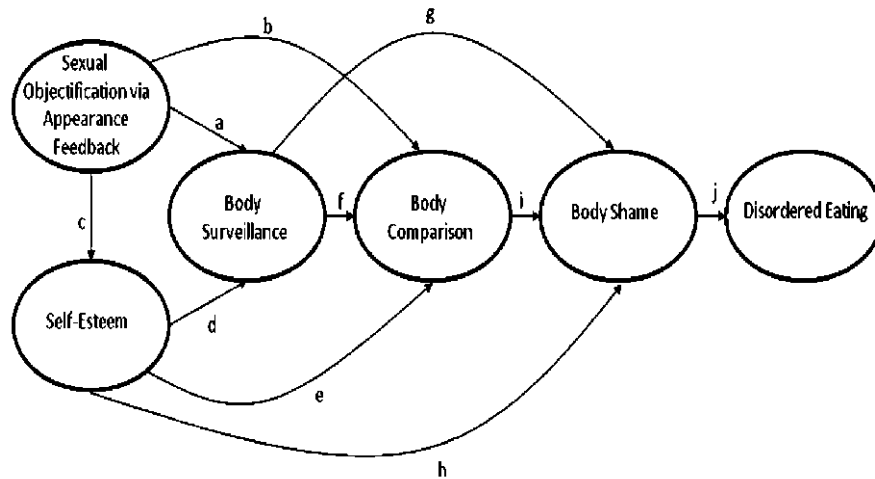


Figure 1. Tylka and Sabik (2010) combined the tenets of objectification theory, social comparison theory and self-esteem.

As it can be seen from the figure, starting with sexual objectification via appearance feedback from others, several processes get activated and they all interact with each other. At the end of these processes, there is one final destination: disordered eating.

Objectification theory mainly focuses on women, but its basic principles can be applied to men too. Constant self-objectification paves way to body surveillance, anxiety, body shame and reduced awareness about internal bodily states (Moradi, 2010). Since relying on internal cues and body appreciation are strong predictors of intuitive eating (Tylka & Hill, 2004), objectification and self-objectification that are created as a result of this process are huge threats for intuitive eating patterns.

1.1.6.2 Parenting

1.1.6.2.1 Well-Intentioned Parental Restrictions

As mentioned before, environmental factors may disrupt the tendency of intuitive eating that human beings have from birth. However this environment does not always have to be a non-accepting and objectifying environment. Well-intentioned behaviors may also cause the loss of intuitive eating patterns. Parents may force their children to eat more (e.g. trying to make the child eat more vegetables) or eat less (e.g. trying to make the child eat less junk food) because of health concerns (Birch & Fisher, 1998). Although well-intentioned acts, strict parental control in feeding paves way to poorer self-regulation in young children (Faith, Scanlon, Birch, Francis & Sherry, 2004). According to Carper, Fisher and Birch (2000), parental pressures to eat and to restrict the food intake both change behavior in girls as young as 5 years old (Birch & Fisher, 2000). This makes children focus less on their bodily signals and more on emotional and external cues.

1.1.6.2.2 Effect of Parents' Eating Behaviors

In their study, Birch and Fisher (2000) found out that a mother's perception of their own body and weight is an indicator of restriction in child feeding (Birch & Fisher, 2000). This brings up questions about how parents' eating behaviors affect their child-feeding practices. According to Pike and Rodin's (1991) study, mothers of daughters with disordered eating have a longer history of dieting and have more disordered eating patterns themselves. These findings suggest a transmission of disordered eating patterns (Pike & Rodin, 1991). In another study, it was found that even 5-year-old girls know about dieting behaviors and their responses to the questions about dieting are similar to responses of older children and adults if their mothers are dieting. These answers were much more articulated than the answers of children whose mothers were not on a diet. So it can be said that transmission of dieting information occurs much earlier than dieting behavior in children (Abramovitz & Birch, 2000).

As it can be seen from previous studies, parental eating behaviors have a great effect on children's eating patterns. When more disordered eating patterns are transmitted from the previous generation, the risk of developing disordered eating patterns increases. This, in turn, is a huge risk factor for losing the intuitive eating patterns. Being constantly exposed to dieting behavior, the children lose their connection with internal states at a very young age.

1.1.7 Importance and benefits of intuitive eating

As indicated earlier, intuitive eating is an innate, adaptive process. The presence of intuitive eating correlates positively with psychological well-being and negatively with eating disorder symptomatology (Tylka & Wilcox, 2006). These theoretical findings have clinical implications and traditional weight loss approaches are gradually getting abandoned. Approaches that focus on health and innate mechanisms are starting to be implemented. Below is a comparison of traditional dieting approaches and health at every size approaches.

1.1.7.1 Health at every size versus dieting approaches

Numerous studies proved that intuitive eating strategies are much more sustainable and health-related than energy-restricted dieting. There is a high risk of developing maladaptive eating patterns like emotional eating when dieting (Péneau, Ménard, Méjean, Bellisle & Hercberg, 2013). Contrary to dieting, intuitive eating programs focus more on health rather than size and weight loss (Bacon, Stern, Van Loan & Keim, 2005). Also rather than increased cognitive restraint, decreased constraint is encouraged in 'health at every size' programs. These programs aim to increase the reliance on intuitive regulation (Bacon, Stern, Van Loan & Keim, 2005). Research reveals that these programs achieve long-term weight maintenance among obese or overweight women (Bacon, Stern, Loan & Keim, 2005) and lower body mass index (BMI) (Tylka, 2006; Tylka & Kroon Van Diest, 2013). However, physical benefits are not the only benefits that 'health in every size' programs provide. These programs also increase psychological well-being. In one study, Bacon, Stern, Van Loan and Keim (2005)

implemented two different programs with different groups. One group was dieting and the other was in an intuitive eating program. 100% of the individuals in the second group reported feeling better about themselves and this ratio was only 47% in the diet group. Also after a brief amount of time with improvement, the individuals in the diet group demonstrated a worsening of self-esteem and more than half of these individuals expressed that they felt like they failed. None of the individuals in intuitive eating program expressed these kinds of feelings (Bacon, Stern, Van Loan & Keim, 2005).

1.2 WHAT IS NON-INTUITIVE EATING?: EMOTIONAL EATING

Emotional eating is the opposite of intuitive eating. Rather than depending on bodily signals, emotional eaters depend on emotional states for their eating behaviors. Researchers have found that emotional eaters overeat in negative and stressful situations because food distracts them and helps them escape disturbing mood states (Telch, 1997). There are different approaches on why people eat when they feel emotional. These approaches are briefly explained below.

1.2.1 Inadequate affect regulation

The models that focus on the role of inadequate affect regulation in emotional eating claim that emotional eaters eat as a response to aversive mood since they have learned that eating distracts them from those negative mood states (Telch, 1997).

1.2.2 Escape Theory

This theory claims that emotional eating (or overeating in the sense that it is more than what the body needs) is a response to threatening self-awareness. When an individual's body becomes subjected to internal or external high standards, it becomes harder to attain those standards. Thus, emotional eaters want to escape from that threatening awareness of self by moving their focus to other external stimuli, like food (Heatherton & Baumeister, 1991).

1.2.3 Restraint Theory

Herman and Polivy claim that negative affect causes emotional eating (or overeating in the sense that it is more than what the body needs) especially for individuals who are restrained eaters (as cited in Spoor, Bekker, Van Strien, & van Heck, 2007). The more these individuals try to limit their energy intake, the more they get preoccupied about food (Polivy & Herman, 1999).

1.3 IS INTUITIVE EATING AN ANTI-THESIS OF DISORDERED EATING?

As mentioned above, intuitive eating is an adaptive eating behavior that all human beings have from birth onwards. This behavior may change due to environmental and psychological reasons. Psychological well-being is not only an absence of pathology. It has its own dynamics and strengths (Seligman & Csikszentmihalyi, 2000). However, research about eating disorders usually only focuses on pathology or lack of pathology. Tylka and Wilcox (2006) claim that this is the wrong approach since a low level of pathology does not equal adaptive eating. Although intuitive eating usually correlates with absence of eating disorder symptoms, it cannot be reduced only to that. Tylka and Wilcox (2006) proved this in a study, in which they aimed to understand how the Intuitive Eating Scale subscales are related to eating disorder symptoms. They found that unconditional permission to eat and ED symptomatology have a strong negative relationship. Thus, it is not possible to perceive unconditional permission to eat as a concept independent from the absence of ED symptomatology. However this was not the case for the other two subscales, namely, eating for physical rather than emotional reasons and reliance on hunger/satiety cues. The authors found that these two make additional contributions to well-being indices. With this finding, the authors proved that intuitive eating is a concept worth examining that does not only represent lack of ED symptomatology (Tylka & Wilcox, 2006).

1.4 THE INTUITIVE EATING SCALE

The IES was developed in 2006 by Tracy Tylka (Tylka, 2006). Tylka noted that most instruments that assess eating behaviors were focused on pathology, and wanted to develop an instrument that assesses intuitive eating which is a type of adaptive eating. Her study was based on three central features of intuitive eating: (a) unconditional permission to eat when hungry and what food is desired, (b) eating for physical rather than emotional reasons, and (c) reliance on internal hunger and satiety cues to determine when and how much to eat (Tylka, 2006). These features later became the three factors of Intuitive Eating Scale. These three first-order factors loaded on a higher-order intuitive eating factor.

The IES is a scale based on these three factors and has 21 items. It has been validated in a sample of college women. Its psychometric properties are good. It is stable over a 3-week period, the relationship between first and second administration found to be .90. Also, the scale has been found to be internally consistent ($\alpha = .85$) (Tylka, 2006).

1.5 THE INTUITIVE EATING SCALE - 2

Tylka and Kroon Van Diest developed the IES-2 (Tylka & Kroon Van Diest, 2013). There are several reasons why the original IES did not seem inadequate. First, these researchers thought the IES did not assess an important component of intuitive eating, which is gentle nutrition. Gentle nutrition can be explained as the tendency to choose food to honor health and body functioning as well as good taste. This is added as the fourth factor (Body-Food Choice Congruence). Second, they thought that the majority of the items in the IES assessed the absence of intuitive eating. In developing the IES-2 they added items that assess the presence of intuitive eating. Also the items that assessed the absence of intuitive eating were reverse-scored. Since reverse scoring made the scoring process more complicated, all new items were designed to be positively scored. Lastly, since Cronbach's alpha for the original RHSC subscale was low to mid .70s, they added and replaced some items to improve its internal consistency. As a result, Tylka and Kroon Van Diest added 17 more items and one more

factor to the original IES. Its psychometric properties were evaluated in a larger sample and male participants were also included. After factor analysis, 15 items were deleted and the final 23 items remained (11 original, 12 newly developed items). It has 4 first-order factors and these factors load on a higher-order intuitive eating factor. The present study is conducted with this 23-item, 4-factor Intuitive Eating Scale-2.

1.6 PRESENT STUDY

Although there are numerous studies on and various scales measuring eating disorder symptomatology, adaptive eating has not received that much research attention. Consistent with the research trend in the world, in Turkey eating behaviors are usually assessed with scales that aim to distinguish disturbed and non-disturbed eating. The scales that were adapted to Turkish like EAT-40 (Erol & Savaşır, 1989), EAT-26 (Ergüney-Okumuş & Sertel-Berk, 2016) and EDE-Q (Yücel, Polat, İkiz, Pirim-Düşgör, Yavuz & Sertel-Berk, 2011) are all examples of such scales and to my knowledge there are no scales in Turkish to assess adaptive eating patterns independent from pathology. As mentioned above, low ED symptomatology does not mean that the person has healthy eating behaviors. Adaptive eating is an independent concept. Intuitive eating approaches are important especially for people who have binge eating patterns. According to Güneri Akay (2016), the adaptation of the IES-2 to Turkish is important because it will give a chance to compare intuitive eating behaviors in Turkey with international data. Also it will provide an opportunity to identify individuals who do not have the ability to distinguish physical hunger from emotional hunger. Clinically, it will be possible to intervene these individuals before they are diagnosed with eating disorders. This is especially important in Turkey since a 2010 study claims that obesity prevalence has increased to 42% in women and 26.9% in men (MedCHAMPS, 2011). If clinicians can intervene before diagnosis, programs like health at every size (mentioned above) can be implemented and more serious health risks can be prevented beforehand.

1.6.1 Hypotheses.

1.6.1.1 Study 1

a. Intuitive eating will be higher in men than women. Although the media affect both men and women, in the modern world, women get more affected by the thin ideal that is promoted by the media. Thus, I hypothesize that women will have lower intuitive eating scores.

b. Intuitive eating will not increase linearly with age, especially for women. Recent studies have found that women between the ages 18-36 gain more weight than younger or older age categories of women. It is claimed that this weight gain might be related to contraception use, university transitions, eating fast food and quitting smoking (Wane, van Uffelen & Brown, 2010). It is possible that women in these ages are more likely to have dieting behaviors. Thus, I expect that women in mid 20's and 30's will have the lowest IES-2 total score.

c. In the previous studies (Tylka, 2006; Tylka & Kroon Van Diest, 2013; Camilleri et al., 2015) score on the IES-2 was found to correlate positively with different types of psychological well-being indices. I expect that this pattern will be seen in this study too. Thus, the IES-2 will be correlated positively with the Rosenberg Self-Esteem Scale and the IES-2 will be correlated negatively with EAT-26, Maudsley Obsessive-Compulsive Inventory and Social Physique Anxiety Scale; these scales assess disordered eating, obsessive thoughts and social anxiety about body, respectively.

d. The IES-2 will be negatively correlated with participants' BMI, since higher BMI indicates elevated weight.

1.6.1.2 Study 2.

e. After confirmatory factor analysis, the overall model would provide a good fit to the data in a different sample.

f. The first-order factors would load on a second-order intuitive eating factor.

CHAPTER 2: STUDY 1

2.1 METHOD

2.1.1 Participants

Anyone above the age of 18 was eligible to participate in this study. The participants were contacted through Internet and the scales were uploaded on Survey Monkey. Convenience sampling was used. 342 people participated to the study. 264 completed surveys were eligible for the analysis. Of these 264 participants, 217 were women (82.20%) and 47 (17.80%) were men. Ages of participants varied between 18 and 66 ($M=33.56$, $SD=12.83$). 143 (54.2%) of the participants were either bachelor's level students or graduates, 103 (39%) were master or doctorate level students or graduates. Only 15 (5.7%) were high school graduates. Remaining 3 participants (1.1%) reported to have higher education level than doctorate level. 93 (35.2%) of the participants were married and 171 (64.8%) of them were unmarried. In all participants, minimum weight was 40 kg and maximum weight was 115 kg ($M=64.90$, $SD=13.08$). From all participants, minimum height was 150 centimeters and maximum height was 191 centimeters. Mean height of the participants was 166.4 and the standard deviation was 7.67. The participants only reported their height and weight in demographic information form. Their BMI was calculated by the researcher with this formula in SPSS: $(\text{weight in kilograms})/(\text{height in meters})^2$

89 (33.7%) participants were university students. 225 (85.2%) participants reported that they do not diet whereas 39 (14.8%) participants reported that they diet. When asked about the health problems in the last 6 months (participants had the chance to choose more than one option), 0.8% indicated that they had a traffic accident, 16.3% indicated that gained or lost excessive weight, 0.8% indicated that they had an important surgery, 27.3% indicated that they had psychological problems and 56.8% indicated that they had other unspecified problems. 6.81% indicated that they did not have any health related problems in the last 6 months.

63.6% percent of the participants lived with their families, followed by 9.5% living alone, 9.1% living with friends, 8.7% living in a dormitory. 9.1% chose 'other' in which most participants indicated that they live with their partners or relatives. Monthly household income of the participants was less than 1000 Turkish Liras for 0.8%, 1000-2999 Turkish Liras for 9.1%, 3000-4999 Turkish Liras for 20.1%, 5000-6999 Turkish Liras for 18.2%, 7000-8999 Turkish Liras for 10.2%, 9000-9999 Turkish Liras for 5.3% and more than 10000 Turkish Liras for 36.4%.

2.1.2 Instruments

2.1.2.1 Informed Consent Form

There was an informed consent form that the participants signed before enrolling in the study. Although the aim of the study was not extensively explained in this form, the participants knew that the study was about eating attitudes. The participants were informed that if they were interested in the study, the debriefing could be done via e-mail.

2.1.2.2 Demographic Information Form

The data were collected anonymously, so the form did not ask for a name. The form included questions about participants' age, gender, self-reported height and weight, education, marital status, health status, the people they live with and monthly household income.

2.1.2.3 The Intuitive Eating Scale – 2 (IES – 2)

The IES-2 was originally developed by Tylka and Kroon Van Diest (2013). It includes 4 factors: 1) Eating for Physical Rather Than Emotional Reasons, 2) Unconditional Permission to Eat, 3) Reliance on Hunger and Satiety Cues, 4) Body-Food Choice Congruence. The first three factors are present in the first version of the IES (Tylka, 2006) but fourth factor is recently added to the scale. There are 23 items that are scored in 5-Likert-type scale. There is a total intuitive eating score and higher scores indicate greater level of intuitive eating. The IES-2 has good psychometric properties ($\alpha = .87$ for women, $\alpha = .89$ for men).

Eating for Physical Rather Than Emotional Reasons has eight items:

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

8- I find myself eating when I am lonely, even when I'm not physically hungry.

9- I use food to help me soothe my negative emotions.

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

11- I am able to cope with my negative emotions (e.g., anxiety, sadness) without turning to food for comfort.

12- When I am bored, I do NOT eat just for something to do.

13- When I am lonely, I do NOT turn to food for comfort.

14- I find other ways to cope with stress and anxiety than by eating.

Unconditional Permission to Eat has six items:

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

2- I have forbidden foods that I don't allow myself to eat.

3- I get mad at myself for eating something unhealthy.

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

5- I allow myself to eat what food I desire at the moment.

6- I do NOT follow eating rules or dieting plans that dictate what, when, and/or how much to eat.

Relying on Hunger and Satiety Cues has six items:

15- I trust my body to tell me when to eat.

16- I trust my body to tell me what to eat.

17- I trust my body to tell me how much to eat.

18- I rely on my hunger signals to tell me when to eat.

19- I rely on my fullness (satiety) signals to tell me when to stop eating.

20- I trust my body to tell me when to stop eating.

Body-Food Choice Congruence has three items:

21- Most of the time, I desire to eat nutritious foods.

22- I mostly eat foods that make my body perform efficiently (well).

23- I mostly eat foods that give my body energy and stamina.

The full table of translated items can be found in Appendix F.

2.1.2.4 Turkish Version of the IES-2

The original IES-2 was forward translated to Turkish by the author. The advisor, fluent in English and a second scholar whose native language is English performed the back translations. The author and the advisors compared the back translations with the original scale and fine-tuned the translation. Dr. Tracy Tylka who developed the original IES scale (Tylka, 2006) and took part in the development process of the IES-2 (Tylka & Kroon Van Diest, 2013) supported the adaptation process and gave her suggestions about item arrangement. A pilot test was done and the last shape of the scale's Turkish version was given.

2.1.2.5 Rosenberg Self-Esteem Scale

Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965) is a self-report measure that aims to assess self-worth and self-acceptance. There are 10 items that are scored in 5-Likert-type scale (1-strongly disagree, 5-strongly agree). Higher scores mean higher self-esteem. RSES is a widely used scale in psychological research and has good psychometric values ($\alpha=.77$).

RSES was standardized to Turkish by Çuhadaroğlu (1986) and the Turkish version also has high internal reliability ($\alpha=.82$)

2.1.2.6 Maudsley Obsessive-Compulsive Inventory

Maudsley Obsessive-Compulsive Inventory (MOCI) aims to assess obsessive-compulsive behaviors and traits. It was originally developed by Hodgson and Rachman (Hodgson & Rachman, 1977). There are 30 items in true-false format (true answers are 1 point and false answers are 0 point) and it gives a total "obsessionality" score and subscale scores. There are four subscales in the original inventory: Checking, Cleaning, Slowness and Doubting.

MOCI was standardized to Turkish by Erol and Savaşır in 1988 (Erol & Savaşır, 1988). In this version, the authors added 7 more items from the Minnesota Multi Phasic Inventory (MMPI), making the total item

number 37. Also they added Rumination subscale. In this study only Checking and Rumination subscales (total of 11 items) were used since it was hypothesized that eating patterns would be mainly related to these two subscales.

2.1.2.7 EAT-26

EAT-26 is a self-report measure that aims to assess disturbances in eating patterns. There are 26 items that are scored in 6-Likert-type scale. The original scale was developed by Garner, Olmsted, Bohr and Garfinkel in 1982 (Garner, Olmsted, Bohr & Garfinkel, 1982). It is a shortened and more economic version of EAT-40 scale that was developed by Garner and Garfinkel (1979) and is highly correlated with EAT-40 ($r = 0.98$) (Garner, Olmsted, Bohr & Garfinkel, 1982). It has three factors: dieting, bulimia and food occupation and oral control. The cut-off score is 20, with scores above 20 showing the presence of disturbances in eating patterns. Although it is a shortened version of EAT-40, EAT-26 has good psychometric properties ($\alpha=.90$).

EAT-26 is standardized to Turkish by Ergüney-Okumuş and Sertel-Berk (2016) and this version also has high internal reliability ($\alpha=.75$).

2.1.2.8 Social Physique Anxiety Scale (SPAS)

Social Physique Anxiety Scale (SPAS) is a self-report measure that aims to assess individuals' anxiety about their physical appearances. The original scale was developed by Hart, Leary and Rejeski (1989). There are 12 items that are scored in 5-Likert-type scale. The scores range from 12 to 60 and anxiety about physical appearance increases as the score increase. The scale has high internal reliability ($\alpha=.90$).

SPAS was standardized to Turkish by Mülazımoğlu-Ballı and Aşçı (2006) and this version also has high internal reliability ($\alpha=.81$ for girls, $\alpha=.77$ for boys). In the Turkish version, the items are scored in 6-Likert-type scale.

2.1.3 Procedure

The data were collected via Survey Monkey. The link was distributed through social media, acquaintances of the author, and the

academic advisors. After informed consent form, the participants filled the different scales. Survey Monkey randomized the scale sequences. After the scales, the participants filled the demographic information form. 139 (52.65%) of the participants gave their e-mail addresses for a second application of the IES-2 in order to assess test-retest reliability. In this second application the participants only filled the IES-2 with no demographic information or other scales. The data was analyzed in SPSS 21.

2.2. RESULTS

2.2.1 Descriptive Statistics

Descriptive statistics of the scales with means and standard deviations for all study variables are listed in Table 1. It should be noted that all descriptive statistics were calculated after and according to exploratory factor analysis' results.

Table 1
Descriptive Statistics for All Study 1 Variables

	N	Min.	Max.	Mean	Std. Deviation
IES-2 Total	264	1.57	4.86	3.37	0.64
EPR	264	1.00	5.00	3.25	1.03
UPE	264	1.00	5.00	3.35	0.73
RHSC	264	1.00	5.00	3.57	0.87
BFCC	264	1.00	5.00	3.29	0.90
Maudsley OCI	264	.00	10.00	3.62	2.70
Rosenberg SES	264	21.00	33.00	26.14	1.81
Social Physique Anxiety Scale	264	12.00	71.00	38.95	12.46
EAT-26	264	.00	41.00	10.54	8.17
BMI	262	15.06	37.11	23.33	3.97
Weight	262	40	115	64.90	13.08
Height	264	150	191	166.46	7.67

Men ($M = 3.66$, $SD = 0.57$) had higher total IES-2 scores than women ($M = 3.31$, $SD = 0.64$). This pattern was also visible in subscales and can be seen in Table 2 and 3. This can be related to the fact the women are

targeted more in the objectification process (mentioned above, Fredrickson & Roberts, 1997). Independent-Samples T-test was conducted to check if the gender difference in the IES-2 total scores was significantly different. Although there was an asymmetrical male-female distribution, Levene's test for equality of variances revealed that equal variances could be assumed. T-test results revealed that the mean difference between male and female scores were statistically significant: $t(262) = -3.41, p = 0.001$.

Table 2
Means, Standard Deviations and Minimum-Maximum Values for Female Participants

	N	Minimum	Maximum	Mean	Std. Deviation
IES-2 Total	217	1.57	4.86	3.31	0.64
EPR	217	1.00	5.00	3.13	1.02
UPE	217	1.00	5.00	3.33	0.69
RHSC	217	1.00	5.00	3.54	0.88
BFCC	217	1.00	5.00	3.27	0.90

Table 3
Means, Standard Deviations and Minimum-Maximum Values for Male Participants

	N	Minimum	Maximum	Mean	Std. Deviation
IES-2 Total	47	2.57	4.81	3.65	0.56
EPR	47	1.88	5.00	3.81	0.87
UPE	47	1.60	5.00	3.44	0.89
RHSC	47	2.00	5.00	3.71	0.81
BFCC	47	1.50	5.00	3.40	0.87

One-way ANOVA was conducted to check the differences of the IES-2 total scores of age groups in each gender. Data were tested for normality and homogeneity of variance. In both female and male data the distribution was normal and the variances were homogenous. One-way ANOVA was used. A quadratic, non-linear trend was expected and the results revealed that the groups were significantly different and the trend was non-linear ($F(1, 211) = 4.713, p = 0.03$). Planned contrasts revealed

that the age group of 26-35 had the lowest IES-2 scores among women ($t(211)= 2.90, p = 0.004$). In male data, there was no significant difference ($F(1, 43) = 0.295, p = 0.59, t(43)= -0.676, p = 0.503$). This may be caused by the fact that the total number of male participants was 47 and this might not give a reliable result about the difference among different age groups; however a non-linear pattern also existed in male data. Although not significantly different, age group of 36-45 had the lowest IES-2 scores among male participants.

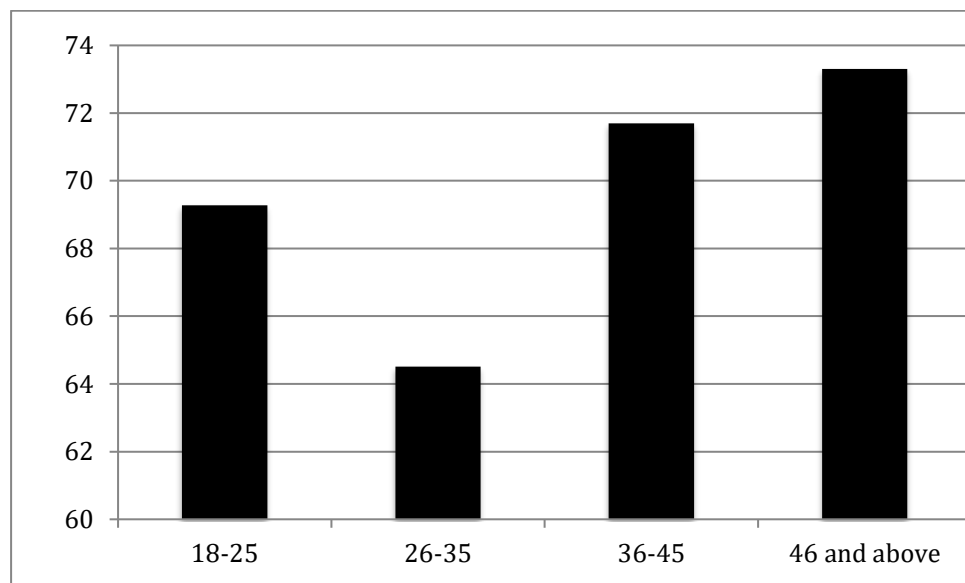


Figure 2. Mean Scores for Female Participants

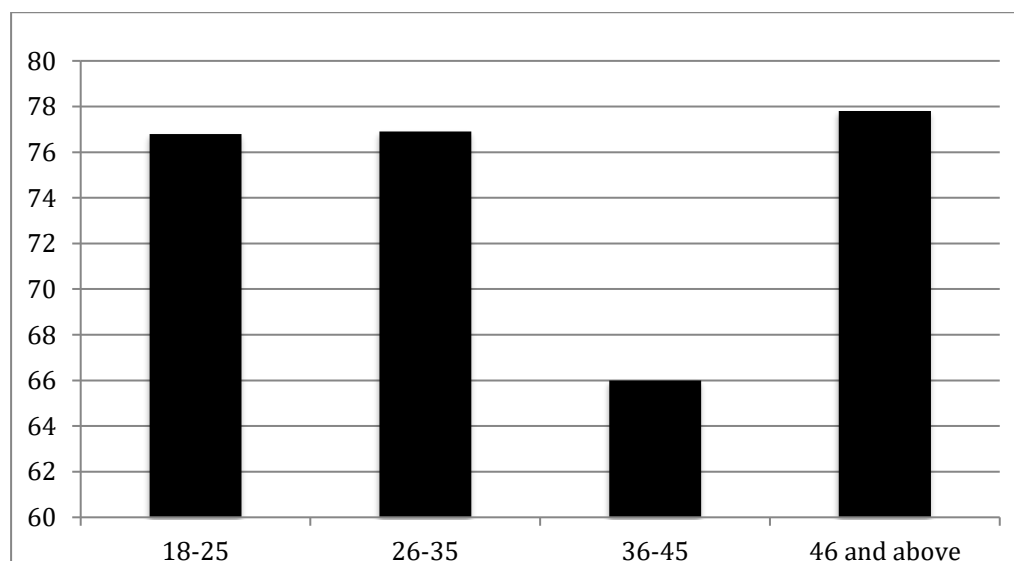


Figure 3. Mean Scores for Male Participants

2.2.2 Exploratory Factor Analysis

To assess the factor structure of the IES-2, exploratory factor analysis was conducted on 23 items. All the analyses were conducted in SPSS 21. Kaiser-Meyer-Olkin Measure of Sampling Adequacy was found to be 0.88, thus the data had adequate common variance allowing an EFA. The significance of Bartlett's test of sphericity, $\chi^2 (253) = 3901.316$, $p < 0.001$, suggested that the correlation matrix is factorable (Tabachnick & Fidell, 2007). Common factor analysis with principal axis factoring and direct oblimin rotation was used since the factors were expected to be correlated. Delta weight was specified to be 0 since this value allows moderate correlation between the factors. The number of factors was determined by factor eigenvalues above 1.0 and a noticeable change in the slopes within the scree plot (Tabachnick & Fidell, 2007).

Five factors had eigenvalues greater than 1.0. Initial eigenvalues and percentage of variance accounted for by each of these factors were 8.13 and 35.35% for Factor 1, 2.61 and 11.36% for Factor 2, 2.21 and 9.63% for Factor 3, 1.52 and 6.62% for Factor 4 and 1.14 and 4.97% for Factor 5. Together they accounted for 67.94% of the variance. In the scree plot, it was not clear where a notable change starts; after factor 3 or 4. So the factor analysis was run again and the number of factors was fixed to 3 and 4 respectively. In 3-factor structure the results were not interpretable since the items that were in the same factor were negatively correlated. That is why the factor number was fixed to 4 and the structure became interpretable.

To be sure about the factor structure, a parallel analysis in R was conducted since it estimates the number of factors in a data set more accurately. Parallel analysis shows eigenvalues of existing data set along with random data set that has identical dimensionality and the intersection point is accepted as the appropriate factor number (Brown, 2006). Parallel analysis also suggested that the four factors should remain.

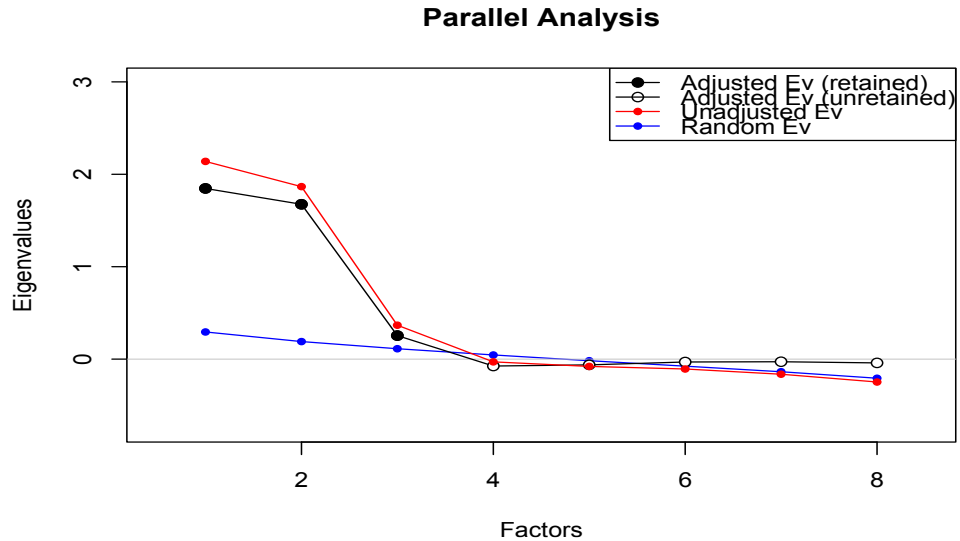


Figure 4. Parallel Analysis

The factor-item structure is the same with original IES-2 factor-item structure. In interpreting the rotated factor pattern, items with a factor loading of 0.40 were considered to represent the factor (Camilleri et al., 2015). Two items were excluded. One of them was in Factor 4 (item 21- Most of the time, I desire to eat nutritious foods). The item had KMO value that is lower than 0.5 and thus it was dropped (Field, 2009). After this exclusion the factor analysis was computed again and this time item 6 (I do NOT follow eating rules or dieting plans that dictate what, when, and/or how much to eat) in Factor 2 had primary loadings less than .40 and it was also dropped.

The first factor is Eating for Physical Rather than Emotional Reasons and it is composed of items 7-8-9-10-11-12-13-14. The factor loadings change between 0.46 and 0.94. The item that has the biggest loading is 10. The second factor is Unconditional Permission to Eat and it is composed of items 1-2-3-4-5. The factor loadings change between 0.50 and 0.71. The item that has the biggest loading is 1. The third factor is Reliance

on Hunger and Satiety Cues and it is composed of items 15-16-17-18-19-20. The factor loadings change between 0.69 and 0.86. The item that has the biggest loading is 17. The fourth factor is Body-Food Choice Congruence and it is composed of items 22-23. The factor loadings are 0.77 and 0.96. The item that has the biggest loading is 22. Table 4 presents the pattern matrix of item-factor loadings of the IES-2.

Table 4
Item-Factor Loadings of the IES-2
Pattern Matrix

	Factor			
	1	2	3	4
10 - I find myself eating when I am stressed out, even when I'm not physically hungry.	.94			
8 - I find myself eating when I am lonely, even when I'm not physically hungry.	.92			
9 - I use food to help me soothe my negative emotions.	.92			
7 - I find myself eating when I'm feeling emotional (e.g., anxious, depressed, sad), even when I'm not physically hungry.	.88			
13 - When I am lonely, I do NOT turn to food for comfort.	.75			
14 - I find other ways to cope with stress and anxiety than by eating.	.68	.16	.11	
12 - When I am bored, I do NOT eat just for something to do.	.55	.16	.16	
11 - I am able to cope with my negative emotions (e.g., anxiety, sadness) without turning to food for comfort.	.46	.24	.24	
1 - I try to avoid certain foods high in fat, carbohydrates, or calories.	-.11	.70		

Table 4 cont.

2 - I have forbidden foods that I don't allow myself to eat.	.15	.62	-.14
5 - I allow myself to eat what food I desire at the moment.		.55	.16
3 - I get mad at myself for eating something unhealthy.	.15	.52	
4 - If I am craving a certain food, I allow myself to have it.	-.10	.50	
6 (deleted) - I do NOT follow eating rules or dieting plans that dictate what, when, and/or how much to eat.	.12	.24	.16
17 - I trust my body to tell me how much to eat.			.86
18 - I rely on my hunger signals to tell me when to eat.			.86
20 - I trust my body to tell me when to stop eating.			.84
19 - I rely on my fullness (satiety) signals to tell me when to stop eating.			.78
15 - I trust my body to tell me when to eat.	.13	.71	
16 - I trust my body to tell me what to eat. 23 - I mostly eat foods that give my body energy and stamina.	.10	.69	
22 - I mostly eat foods that make my body perform efficiently (well).			.96
20 - I trust my body to tell me when to stop eating.			.77

2.2.3 Reliability

2.2.3.1 Internal Reliability

The Cronbach's Alpha of the overall IES-2 was computed to be .89. With regard to subscales Cronbach's Alphas of .93 for Eating for Physical Rather than Emotional Reasons (EPR), .70 for Unconditional Permission to Eat (UPE), .92 for Reliance on Hunger and Satiety Cues (RHSC), .86 for Body-Food Choice Congruence (B-FCC) were computed.

2.2.3.2 Test-Retest Reliability

Test-retest reliability was computed by calculating the intra- class correlation coefficients (ICC) for the IES-2 scores (Shrout & Fleiss, 1979). This ICC was estimated from a one-way random effect ANOVA model with the participant as the random effect (Shrout & Fleiss, 1979).

Of the 264 participants, 58 completed the scale twice. Mean test-retest interval was 24.5 days (SD: 6.764, range:18-45 days). ICC were 0.89 for the IES-2 total score (95% CI: 0.82, 0.94), 0.87 for Eating for Physical Reasons (95% CI: 0.78, 0.92), 0.68 for Unconditional Permission to Eat (95% CI: 0.47, 0.81), 0.86 for Reliance on Hunger and Satiety Cues (95% CI: 0.77, 0.92) and 0.82 for Body-Food Choice Congruence (95% CI: 0.70, 0.89). These ICC indicated a high test-retest reliability for almost all scores except for Unconditional Permission to Eat where test-retest reliability was moderate.

2.2.4 Validity

2.2.4.1 Construct Validity

In the present study, construct validity was evaluated through the examination of the IES-2 subscales. The subscales were all found to have positive significant correlations with the total IES-2 mean. Only Unconditional Permission to Eat did not correlate or found to be negatively correlated with other factors. The possible reason for that is discussed in the discussion. The findings are presented in Table 5.

Table 5
Correlations of the IES-2 Total Scores and the IES-2 Subscale Scores

	IES-2 Total	EPR	UPE	RHSC	BFCC
IES-2 Total	1	.89**	.34**	.80**	.36**
EPR	.89**	1	.08	.57**	.27**
UPE	.34**	.08	1	.11	-.17**
RHSC	.80**	.57**	.11	1	.28**
BFCC	.36**	.27**	-.17**	.28**	1

** p < 0.01

2.2.4.2 Criterion Validity

To determine the criterion validity, the correlations between the total IES-2 scores and scores of Rosenberg Self-Esteem Scale, EAT-26, Maudsley Obsessive-Compulsive Inventory and Social Physique Anxiety Scale were calculated. Negative correlations were expected between the IES-2 scores and subscale scores and scores of EAT-26, Maudsley Obsessive-Compulsive Inventory and Social Physique Anxiety Scale and the participants' BMI. On the other hand, positive correlation was expected between the IES-2 scores and Rosenberg Self-Esteem Scale since RSES is a scale that measures psychological well-being. Table 6 shows that the data were in the expected pattern.

Table 6
Correlation of the IES-2 Scores, Maudsley Obsessive Compulsive Inventory, Rosenberg Self-Esteem Scale, Social Physique Anxiety Scale, EAT-26 and Participants' BMI

	IES-2 Total	Maudsley OCI	Rosenberg SES	Social Physique Anxiety Scale	EAT- 26	BMI
IES-2 Total	1	-.30**	.33**	-.63**	-.26**	-.25**
Maudsley OCI	-.30**	1	-.27**	.33**	.22**	.01
Rosenberg SES	.33**	-.27**	1	-.40**	.00	.01
Social Physique Anxiety Scale	-.63**	.33**	-.40**	1	.37**	.26**
EAT-26	-.26**	.22**	.00	.37**	1	.05**
BMI	-.25**	.01	.01	.26**	.05**	1

** p < 0.01

CHAPTER 3: STUDY 2 – CONFIRMATORY FACTOR ANALYSIS OF THE IES-2

In Study 2, a confirmatory factor analysis was conducted to determine if the 21-item, 4-factor structure would be confirmed in a different sample. Also, a second-order confirmatory factor analysis was conducted to see if first-order factors load on a higher-order intuitive eating factor.

To be sure that Sample 1 and Sample 2 does not have significant differences on the IES-2 total score, EPR, UPE, RHSC, B-FCC scores, weight and height independent-samples T-test was conducted. The results revealed that the groups did not have significant differences in any of these measures except height.

3.1 METHOD

3.1.1 Participants

Anyone above the age of 18 was eligible to participate in this study. The participants were contacted through Internet and the scales were uploaded on Survey Monkey. Convenience sampling was used. 338 people participated to the study. 271 completed surveys were eligible for the analysis. Of these 271 participants, 227 were women (83.8%) and 42 (15.5%) were men. 2 (0.7%) people classified their gender as 'other'. Ages of participants varied between 18 and 63 ($M = 28.22$, $SD = 11.30$). 181 (66.8%) of the participants were either bachelor's level students or graduates, 77 (28.4%) were master or doctorate level students or graduates. 161 (59.4%) participants were university students. Only 13 (4.8%) were high school graduates. 39 (14.4%) of the participants were married and 232 (85.6%) of them were unmarried. From all participants, minimum weight was 40 kg and maximum weight was 117 kg ($M = 63.25$, $SD = 12.98$). From all participants, minimum height was 150 centimeters and maximum height was 192 centimeters ($M = 167.8$, $SD = 7.54$). 209 (77.1%) participants reported that they did not diet whereas 62 (22.9%) participants reported that they dieted. When asked about the health problems in the last 6 months (participants had the chance to choose more than one option), 0.7%

indicated that they had a traffic accident, 11.1% indicated that gained or lost excessive weight, 2.2% indicated that they had an important surgery, 21.4% indicated that they had psychological problems and 8.9% indicated that they had other unspecified problems. 65.7% indicated that they did not have any health related problems in the last 6 months. 63.1% percent of the participants live with their families, and this is followed by 14% living alone, 10.7% living with friends, 6.3% living in a dormitory. 5.9% chose 'other' in most participants indicated that they live with their partners or relatives. Monthly household income of the participants was less than 1000 Turkish Liras for 0.7%, 1000-2999 Turkish Liras for 9.6%, 3000-4999 Turkish Liras for 18.1%, 5000-6999 Turkish Liras for 22.5%, 7000-8999 Turkish Liras for 13.7%, 9000-9999 Turkish Liras for 8.5% and more than 10000 Turkish Liras for 26.9%.

3.1.2 Instruments

3.1.2.1 Informed Consent Form

There was an informed consent form that the participants signed before enrolling in the study. Although the aim of the study was not extensively explained in this form, the participants knew that the study was about eating attitudes. The participants were informed that if they were interested in the study, the debriefing could be done via e-mail.

3.1.2.2 Demographic Information Form

The data were collected anonymously, so the form did not ask for a name. The form included questions about participants' age, gender, self-reported height and weight, education, marital status, health status, the people they live with and monthly household income.

3.1.2.3 Turkish Version of the IES-2

Turkish version of the IES-2 that was used in Study 1 was used in this study.

3.1.3 Procedure

The data were collected via Survey Monkey. The link was distributed through social media and acquaintances of the author and the advisors. After informed consent form, the participants filled the Turkish

version of the IES-2. After that, the participants filled the demographic information form. The data was analyzed in SPSS 21, R 3.3.3 and R Studio 1.0.136.

3.2. RESULTS

3.2.1 Descriptive Statistics

Descriptive statistics with means and standard deviations for all study variables are listed in Table 7.

Table 7
Descriptive Statistics for All Study 2 Variables

	Min.	Max.	Mean	Std. Dev.
IES-2 TOTAL	1.62	4.67	3.33	0.53
EPR	1.00	5.00	3.30	0.86
UPE	1.20	5.00	3.22	0.77
RHSC	1.00	5.00	3.47	0.76
BFCC	1.00	5.00	3.29	0.80
BMI	15.9	39.1	22.35	3.75
Weight	40	117	63.25	12.98
Height	150	192	167.80	7.54

3.2.2 Confirmatory Factor Analysis

The CFA aimed to test whether the four-factor model would be confirmed in a different data set. CFA was conducted in R 3.3.3 and R Studio 1.0.136. Since the data was ordinal, Unweighted Least Squares (ULS) was used as the estimation method as ULS provides more accurate and less variable parameter estimates and more precise standard errors and better coverage rates (Forero, Maydeu-Olivares & Gallardo-Pujol, 2009; Kořar & Yılmaz Kořar, 2015). In the French adaptation of the IES-2, Camilleri et al. (2015) also used ULS as the estimation method (Camilleri et al., 2015).

According to Brown (2006), good model fit should have these properties: RMSEA ($\leq .06$, 90% CI $\leq .06$, CFit *ns*), SRMR ($\leq .08$), CFI ($\geq .95$), and TLI ($\geq .95$) (Brown, 2006). Considering these values, the goodness-of-fit indices demonstrated that overall the model provided an

adequate fit to the data: RMSEA = 0.057 (90% CI= 0.048-0.066), SRMR = 0.07, CFI = 0.98, TLI = 0.97.

To see if it was possible to improve the model fit, modification indices that bigger than 10 were checked. The largest indices suggested that items 3 and 12 might have double loading. To be sure about the possible double loading of these items, EFA results were checked once again and it was seen that these items loaded only on their own factors. The other items that had high modification indices were also checked and it was seen that items 4 and 5, 15 and 18, 19 and 20, 7 and 10, and 15 and 19 had similarly worded phrases. Tylka and Kroon Van Diest (2013) also hypothesized that these items would share method variance because of similar wording. That is why correlated errors between these items were estimated in this study too (Tylka & Kroon Van Diest, 2013). After these estimations, CFA was conducted again and all the goodness of fit indices got much better results and the data had better fit. First order CFA results and modified results are given in Table 8.

Table 8
Goodness of Fit Indices for Various Statistical Models of CFA for the IES-2

Model	χ^2	df	χ^2/df	CFI	TLI	RMSEA	90% CI	SRMR
Four Factors/ Second-Order	344.068	183	0.44	0.98	0.97	0.057	0.048-0.066	0.07
Four Factors-modified/ Second-Order	280.137	178	1.57	0.99	0.98	0.046	0.036-0.056	0.06

Second-order CFA was conducted to see if four factors load on a higher intuitive eating factor. Two of the goodness of fit indices were a bit higher than the accepted baselines (RMSEA=0.073, 90% CI= 0.065-0.082), and SRMR=0.082). The others were acceptable (CFI=0.962, TLI=0.957). Modification indices were checked to see if it is possible to make the data fit better and once again it was seen that the largest modification indices were suggestions of double loading in some items. These items were 3, 8 and 12.

EFA results were checked and no indications of double loading were found. As it was the case in the first order CFA, items 4 and 5, 15 and 18, 19 and 20, 7 and 10, and 15 and 19 were estimated since they shared method variance due to similar wording. After these estimations, second-order CFA was conducted once again. Goodness of fit indices got better and the data turned out to have acceptable fit. When the details were checked, it was seen that UPE factor loaded weakest on higher-order intuitive eating factor; its loading was 0.01. Other factors seemed to load much stronger on higher-order intuitive eating factor (EPR=0.66, RHSC=0.71, B-FCC=0.44). Thus, a three-factor second-order CFA without UPE was conducted to be sure if this relative inadequacy of the model was caused by UPE's special condition. The result of the three-factor CFA was much better than the four-factor CFA's. This indicated that second-order CFA turned out to be relatively inadequate because of UPE. Nonetheless, the results indicated an overall adequate fit for the first-order factors to load on higher-order intuitive eating factor. Four-factor, four-factor modified and three-factor goodness of fit indices of second-order CFA are given in Table 9. It should be kept in mind that three-factors model was conducted only to see if the data did not have a better fit because of UPE's weak loading. The real fit values of the model are indicated with 'four-factors modified/second-order'.

Table 9
Goodness of Fit Indices for Various Statistical Models of Second-Order CFA for the IES-2

								90%	
Model	χ^2	df	χ^2/df	CFI	TLI	RMSEA	CI	SRMR	
Four Factors/ Second-Order	454.768	185	2.46	0.96	0.96	0.073	0.065-	0.08	
							0.082		
Four Factors- modified/ Second-Order	388.391	180	2.16	0.97	0.97	0.06	0.057-	0.07	
							0.074		
Three Factors/ Second-order	186.070	97	1.92	0.99	0.98	0.058	0.046-	0.07	
							0.071		

UPE's loading on higher-order intuitive eating factor was not weak in the original study and the French adaptation of the IES-2 (Tylka & Kroon Van Diest, 2013; Camilleri et al., 2015). Thus, it was questioned if this condition was culture specific. To be sure about this, a post hoc second-order CFA was conducted with the data that was collected for the first study. Once again, in this study too, UPE created a problem and loaded weakest (0.14), whereas other factors load much stronger on higher-order intuitive eating factor (EPR=0.78, RHSC=0.78, B-FCC=0.37). When it was out of the model, the data fit much better. Four-factor, four-factor modified and three-factor goodness of fit indices of second-order CFA that was conducted with Study 1's sample data are given in Table 10.

It should be noted that UPE was not fixed to zero and was deleted completely with its items in both Sample 2 and Sample 1 comparison models. Thus, some of the differences between four-factor and three-factor models might be caused by this.

Table 10
Goodness of Fit Indices for Second-Order CFA for the IES-2 with Study 1's Sample Data

Model	χ^2	df	χ^2/df	CFI	TLI	RMSEA	90% CI	SRMR
Four Factors	417.382	185	2.25	0.98	0.98	0.069	0.060-0.078	0.07
Four Factors-modified	368.005	180	2.04	0.99	0.98	0.063	0.054-0.072	0.06
Three Factors	204.324	129	1.58	0.99	0.99	0.047	0.034-0.059	0.06

Table 11
First and Second-Order CFA Values of the IES-2

	First Order	Second Order
F1: Eating for Physical Rather Than Emotional Reasons (EPR)		0.66
7- I find myself eating when I'm feeling emotional (e.g., anxious, depressed, sad), even when I'm not physically hungry.	0.74	
8- I find myself eating when I am lonely, even when I'm not physically hungry.	0.77	
9- I use food to help me soothe my negative emotions.	0.91	
10- I find myself eating when I am stressed out, even when I'm not physically hungry.	0.78	
11- I am able to cope with my negative emotions (e.g., anxiety, sadness) without turning to food for comfort.	0.44	
12- When I am bored, I do NOT eat just for something to do.	0.69	
13- When I am lonely, I do NOT turn to food for comfort.	0.77	
14- I find other ways to cope with stress and anxiety than by eating.	0.64	
F2: Unconditional Permission to Eat (UPE)		0.01
1- I try to avoid certain foods high in fat, carbohydrates, or calories.	0.79	
2- I have forbidden foods that I don't allow myself to eat.	0.67	
3- I get mad at myself for eating something unhealthy.	0.51	
4- If I am craving a certain food, I allow myself to have it.	0.38	
5- I allow myself to eat what food I desire at the moment.	0.60	

Table 11 cont.

F3: Reliance on Hunger and Satiety Cues (RHSC)	0.71
15-I trust my body to tell me when to eat.	0.56
16- I trust my body to tell me what to eat.	0.61
17- I trust my body to tell me how much to eat.	0.85
18- I rely on my hunger signals to tell me when to eat.	0.69
19- I rely on my fullness (satiety) signals to tell me when to stop eating.	0.77
20- I trust my body to tell me when to stop eating.	0.77
F4: Body-Food Choice Congruence (B-FCC)	0.44

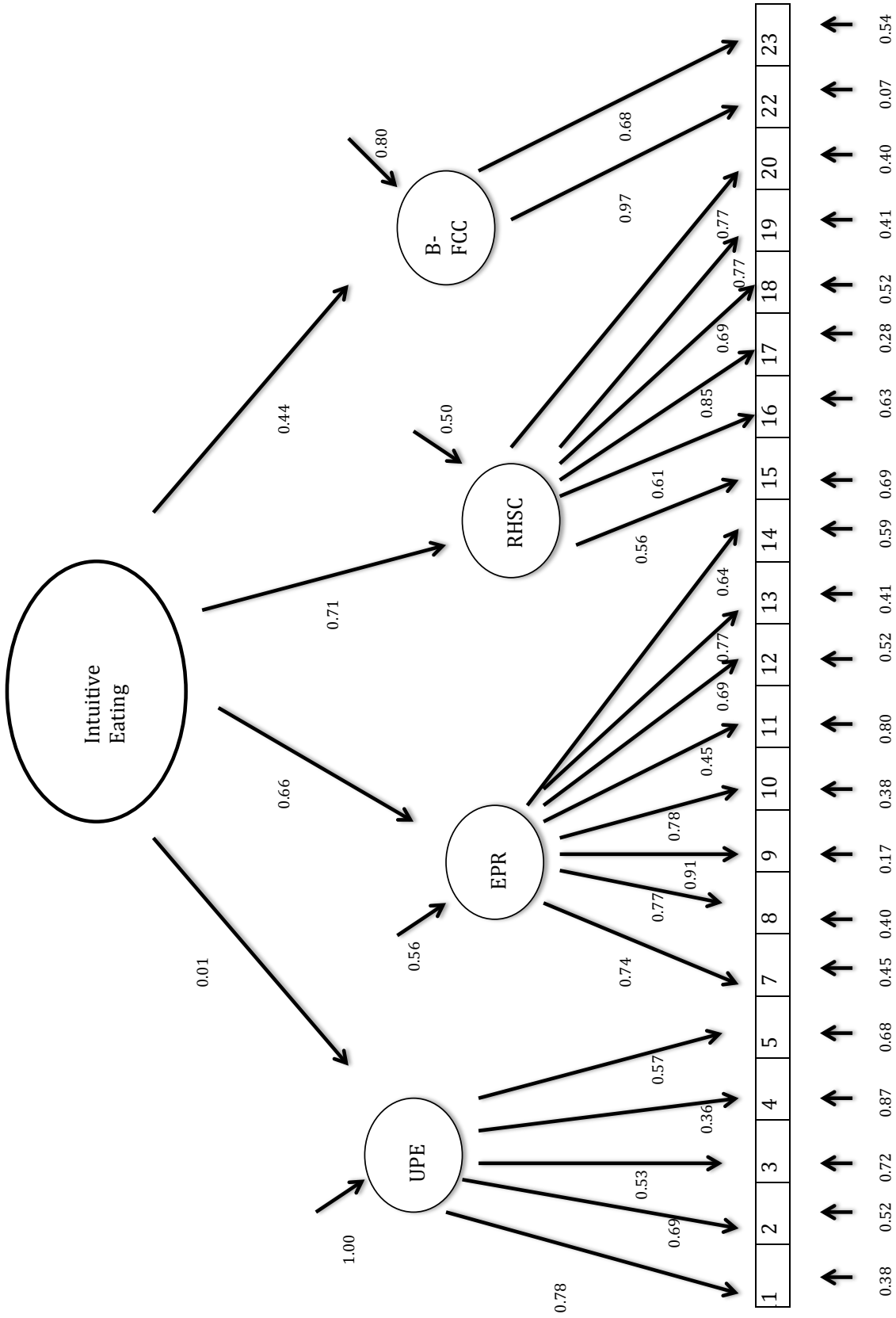


Figure 5. Path Diagram of Second-Order CFA of the IES-2

CHAPTER 4: DISCUSSION

The present study aimed to adapt Intuitive Eating Scale – 2 (Tylka & Kroon Van Diest, 2013) to Turkish and assess the reliability and validity of the Turkish IES-2.

In the first study, the original IES-2 was translated to Turkish, exploratory factor analysis was conducted and reliability and validity of Turkish IES-2 were assessed with a sample of 264 participants. The results of the first study suggested that the Turkish IES-2 is a reliable and valid tool for the assessment of adaptive, intuitive eating patterns.

It was found out that women have lower total IES-2 and subscale scores compared to men and this is in line with the previous study (Tylka & Kroon Van Diest, 2013; Camilleri et al., 2015). As suggested above, the effect of new thin ideals that are constantly presented in the media paves way to self-objectification and this process is much more evident in women. Although it is not possible to say that men are not affected, women are in a more risky situation when it comes to objectifying their own body (Fredrickson & Robert, 1997). Thus, it was not surprising that women displayed lower IES-2 scores. Hypothesis (a) was supported with these findings.

The IES-2 scores did not increase linearly with age. Wane, van Uffelen and Brown (2010), suggested that women gain more weight between 18-36 years of age and contraception use, university transitions, eating fast-food and quitting smoking might be some of several reasons of that (Wane, van Uffelen & Brown, 2010). Besides these, there could be a cultural component. In Turkey, most women in their 20s and 30s get married and become pregnant. In Turkey this can be a more valid reason for weight gain compared to reasons like contraception use. Because of these reasons (and because of the fact that this age range is also most vulnerable in terms of the effect of the media), women may not internalize intuitive eating behaviors at these ages. The data validated this pattern since women in the 25-36 age range had the lowest IES-2 scores. However this pattern

was also visible in men (although the difference was not statistically significant, mean difference pattern can be roughly interpreted). Male participants 36-45 years of age had the lowest IES-2 scores. This age range is also when men first start noticing the signs of aging and decreasing testosterone. In several studies, decreased testosterone has been related to higher BMI and weight gain (Tan & Pu, 2002; Huhtaniemi, 2014), meaning that men might have a transition to dieting approach after noticing the change in their body. Also, there may be a cultural explanation for why Turkish men at these ages have the lowest IES-2 scores. One of them can be the recent implementation of programs aiming to reduce smoking rates in Turkey. It was found that men who quit smoking in these ages gain weight (Satman et al., 2013). Also in an interview with Kaymak, Güneri Akay pointed out that Turkish men cope with stress through alcohol consumption and emotional eating (Kaymak, 2014). With these general and culturally related findings hypothesis (b) was supported.

An exploratory factor analysis was conducted to determine the factor structure of the Turkish IES-2. After the exploratory factor analysis, it was decided that two items had to be deleted. One of them was item 21 in Factor 4 (Most of the time, I desire to eat nutritious foods) and it had low KMO value. Turkey, being a Mediterranean country, it is possible to say that it has a wide range of nutritious food (Bach-Faig et al., 2011) and access to nutritious food might be easier than in most of the Western countries. Thus it can be hypothesized that people in Turkey might not perceive this item as an important part of the scale. The second deleted item was item 6 in Factor 2 (I do NOT follow eating rules or dieting plans that dictate what, when, and/or how much to eat) and it was deleted due to low primary loading. It is the only item in Factor 2 that is not about specific foods and the restraints on them; rather it is about rules and plans. Since it is so different from the other items in the factor, it is possible to say that this sample did not perceive it as a part of that factor.

At the end of this process, the Turkish IES-2 became a 21-item, 4-factor scale. It had good psychometric properties; its overall internal

reliability was high (Cronbach's Alpha = .89). For the subscales, Cronbach's Alpha was .93, .70, .92 and .86 for Eating for Physical Rather than Emotional Reasons (EPR), Unconditional Permission to Eat (UPE), Reliance on Hunger and Satiety Cues (RHSC), Body-Food Choice Congruence (B-FCC) respectively. The Turkish IES-2's test-retest reliability was also high. Mean test-retest interval was 24.5 days (in the original study it was 20.57 days; Tylka & Kroon Van Diest, 2013). ICC were 0.89 for the total IES-2 score and 0.87, 0.68, 0.86 and 0.82 for Eating for Physical Rather than Emotional Reasons (EPR), Unconditional Permission to Eat (UPE), Reliance on Hunger and Satiety Cues (RHSC), Body-Food Choice Congruence (B-FCC), respectively. Only the test-retest reliability of Unconditional Permission to Eat's was moderate.

Overall, the construct validity was good since except for Unconditional Permission to Eat, all subscales were significantly correlated with the IES-2 total score. As it was the case in the original study, UPE and B-FCC were found to be inversely related. As Tylka and Kroon Van Diest (2013) hypothesized, this is understandable since a person who does not limit himself and eat unconditionally (UPE) may not always choose the food that will give his body energy and stamina (B-FCC).

Criterion validity was determined by looking at the correlations between the IES-2 and Rosenberg Self-Esteem Scale, EAT-26, Maudsley Obsessive-Compulsive Inventory and Social Physique Anxiety Scale. As a scale that assesses psychological well-being, the IES-2 had a significant positive correlation with Rosenberg Self-Esteem scale, which is another scale that assesses psychological well-being. All the other scales, which assess disordered eating, obsessive thoughts and body anxiety in social situations respectively, had significant negative correlations with the IES-2. It can be said that the Turkish IES-2 has good criterion validity and hypothesis (c) was supported with these findings.

Similar to the original study (Tylka & Kroon Van Diest, 2013), the participants' BMI and the IES-2 scores were negatively correlated. As Tylka and Kroon Van Diest suggests, it is not possible to say that intuitive

eating makes people lose weight; however it is evident that listening to bodily signals and eating according to these signals is related to lower BMI (Tylka & Kroon Van Diest, 2013). With this finding, hypothesis (d) was supported.

In the second study, a confirmatory factor analysis was conducted to see if the data fits well with another sample. The sample consisted 271 participants. Unweighted Least Squares (ULS) was used as the estimation method since ULS provides more accurate and less variable parameter estimates and more precise standard errors and better coverage rates in ordinal data (Forero, Maydeu-Olivares & Gallardo-Pujol, 2009; Koğar & Yılmaz Koğar, 2015).

Goodness of fit indices were evaluated according to the criteria that was suggested by Brown (Brown, 2006). All the indices were found to be good and the data seemed to fit well; however modification indices were also checked to determine particular sources of strain (Brown, 2006). Modification indices suggested that items 3 and 12 might have double loadings, thus EFA results were checked again and no such double loading problem was found. Another problem involved correlated errors between items 4 and 5, 15 and 18, 19 and 20, 7 and 10, and 15 and 19. When checked, it was seen that these items had similarly worded phrases and share method variance as it was the case in the original study (Tylka & Kroon Van Diest, 2013). When all these were estimated and CFA was conducted again, the data fit much better and all the goodness of fit indices revealed better results. The factor structure of the Turkish IES-2 obtained in Study 1 was confirmed in Study 2 and hypothesis (e) was supported.

Lastly, it was evaluated if first order factors load on a second-order intuitive eating factor. Goodness of fit indices were evaluated and indices needed some improvement. Modification indices were checked and it was seen that the largest ones suggested double loading of items 3, 8 and 12. EFA results were checked for eliminating the double loading suggestion and no signs of double loading were found. As it was the case in the first order CFA, items 4 and 5, 15 and 18, 19 and 20, 7 and 10, and 15 and 19 were

estimated due to shared method variance because of similar wordings. The model turned out to have an acceptable fit however it was seen that UPE had a weak loading on intuitive eating. It can be said that hypothesis (f) is partly supported.

In second-order model, Unconditional Permission to Eat (UPE) had a weak loading on intuitive eating and it may be one of the reasons why second-order model had only acceptable fit. To be sure a three-factor second-order model was run without UPE and it was seen that the fit got much better. This was not the case in the original study (Tylka & Kroon Van Diest, 2013) and in the French adaptation of IES-2 (Camilleri et al., 2015). To be sure if it was about a cultural difference, a post hoc second-order CFA was conducted in the sample data that was collected for Study 1 and once again UPE had the weakest loading. UPE had correlational problems with other factors in Study 1 too. It should be kept in mind that in both Sample 2 and Sample 1 models some of the differences between four-factor and three-factor models might be caused by the fact that UPE was not fixed to zero and was deleted completely from the model with its items. Nevertheless, it is possible to say that specifically in the Turkish sample, unconditional permission to eat has a weak relation with intuitive eating. Although it is not possible to give a definite reason for this cultural difference, a tentative theory might be suggested here. When looked at the items of UPE, it can be seen that the items have a ‘mental involvement’ aspect. Giving permission, having forbidden foods or trying to avoid certain foods are not natural processes. On the other hand, the items in the other factors are more related to the connection of the mind with the body and these involve more natural processes. Collectivistic cultures are usually considered as relying more on intuitions. As collectivistic and individualistic tendencies are found to coexist for people in Turkey (Göregenli, 1995) it can be hypothesized that a factor that has a big deal of mental involvement might not be perceived as an intuitive process, whereas connection of the mind with the body might be perceived as a more intuitive process. A wider cultural comparison about the perception of adaptive

eating patterns is beyond the scope of current study; however it is important to keep in mind this cultural difference for future research.

4.1 CLINICAL IMPLICATIONS

The Turkish IES-2 is the first scale that assesses adaptive eating behaviors in Turkish. Up to this study, scales that assess disordered eating behaviors were adapted to Turkish. Low disordered eating symptomatology does not mean that the individual has the ability to distinguish physical hunger from emotional hunger, or that she/he has adaptive eating behaviors. Thus, these scales were not adequate to assess adaptive eating patterns. Now it is possible to assess intuitive/adaptive eating behaviors within the Turkish population.

This study was conducted with a total of 535 participants from different backgrounds, age groups and occupations. It can be said that, the sample was heterogeneous and diverse. The Turkish IES-2 can be used in assessing intuitive eating behaviors in the normal population. Now that the IES-2 is adapted to Turkish, it is possible to compare international data with Turkish data (Güneri Akay, 2016).

Also now it is possible to identify individuals who do not have the ability to distinguish physical and emotional hunger. This will make it possible to intervene and improve these individuals' eating behaviors before they are diagnosed with eating disorders (Güneri Akay, 2016). Different examples of such intervention programs exist. One of them, "My Body Knows When", is an intervention program designed for non-clinical population. This program helped people move away from dieting mentality and to rely on their intuitions in eating decisions (Cole & Horacek, 2010). Also, as mentioned before, intuitive eating approaches have significant psychological benefits (Tylka, 2006; Bacon et al., 2002). Thus, it is possible to say that intervention programs that support intuitive eating approaches help individuals improve their eating behaviors and decrease maladaptive

eating patterns like binge-eating episodes (Bush, Rossy, Mintz & Schopp, 2014). These are important interventions in preventing eating disorders; now Turkish IES-2 can be used to assess individuals with maladaptive eating practices and specific intervention programs can be designed.

4.2 LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

There are several limitations of these two studies. Firstly, although both male and female participants were included in these studies, male participants were much fewer than female participants and male data may not be generalizable. Future research should involve more male participants or focus solely on male participants and their intuitive eating behaviors.

Secondly, the characteristics of the samples in these two studies may not represent the Turkish population. The education and income levels is much higher than the average population. Future research should be conducted with a more representative sample.

Thirdly, these data were collected from a normal population. It would be interesting to collect data from people who have different eating disorders like anorexia nervosa, bulimia nervosa and binge eating. This would give us the chance to compare them with the normal population and disorder-specific fluctuations in total and subscale scores would be visible. Also, disorder-specific applications like 'health at every size' (applied to obese patients) can be implemented. The IES-2 scores can be used as an assessment tool in such programs and can be computed before and after the intervention.

Another limitation of the studies was UPE's weak loading on the higher-order intuitive eating factor. It was controlled in two different samples and in both of the models UPE had a weak loading; thus it was concluded that this was a culture-specific condition. Future research should investigate this culture specific perception of UPE in the Turkish

population.

Lastly, B-FCC happened to be a factor with only two items in this study. Although it has originally three items and only one item was omitted due to low KMO value, additional research is required for it.

CHAPTER 5: CONCLUSION

Before this adaptation study, eating behaviors could only be measured by scales that assess disordered eating and it was not possible to assess adaptive eating behaviors in the Turkish population. Since adaptive eating is not equal to non-disordered eating and has its own dynamics, these scales that assess disordered eating are not good enough. Intuitive eating is one type of adaptive eating and Intuitive Eating Scale-2 is one of the best tools that assess it. That is why the Turkish IES-2 will be beneficial in identifying individuals who do not have the ability to distinguish physical hunger from emotional hunger in the Turkish population. The present research, despite its limitations, may be regarded as a valuable step of a new approach to assessing adaptive eating behaviors in Turkish.

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CHAPTER 6: APPENDICES

Appendix A: Demographic Information

Demografik Bilgiler

Yaşınız:

Cinsiyetiniz:

Medeni durumunuz:

Eğitim düzeyiniz:

Üniversite öğrencisiyseniz bölümünüz ve sınıfınız:

Mesleğiniz:

Oturduğunuz yer:

Ailenizde haneye giren ortalama aylık gelir:

Son 6 ayda yaşadığınız sağlık problemleri:

Kilonuz:

Boyunuz:

Diyet yapıyor musunuz?

**Appendix B: Maudsley Obsessive-Compulsive Inventory –
Checking and Rumination Subscales**

Sık sık hoşla gitmeyen şeyler düşünür, onları zihnimden uzaklaştırmakta güçlük çekerim. D/Y

Sık sık havagazını, su musluklarını ve kapıları birkaç kez kontrol ederim. D/Y

Aklıma takılan nahoş düşünceler hemen her gün beni rahatsız eder. D/Y

Bana göre bazı sayılar son derece uğursuzdur. D/Y

Mektupları postalamadan önce onları tekrar tekrar kontrol ederim. D/Y

Esas sorunum bazı şeyleri tekrar tekrar kontrol etmemdir. D/Y

Bazı şeyleri birden fazla kontrol ederim. D/Y

Sabahları elimi yüzümü yıkamak çok zamanımı alır. D/Y

Her gün bazı şeyleri tekrar tekrar kontrol etmek bana zaman kaybettirir. D/Y

Kendimi toparlayamadığım için günler, haftalar, hatta aylarca hiçbir şeye el sürmediğim olur. D/Y

Bazen önemsiz düşünceler aklıma takılır ve beni günlerce rahatsız eder. D/Y

Appendix C: Rosenberg Self-Esteem Scale

MADDE 1

1. Kendimi en az diđer insanlar kadar deđerli buluyorum.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ
2. Bazı olumlu zelliklerim olduĐunu dŐnyorum.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ
3. Genelde kendimi baŐarısız bir kiŐi olarak grme eĐilimindeyim.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ

MADDE 2

4. Ben de diđer insanların biroĐunun yapabildiĐi kadar birŐeyler yapabilirim.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ
5. Kendimde gurur duyacak fazla birŐey bulamıyorum.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ

MADDE 3

6. Kendime karŐı olumlu bir tutum iindeyim.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ

MADDE 4

7. Genel olarak kendimden memnunum.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ

MADDE 5

8. Kendime karŐı daha fazla sayĐı duyabilmeyi isterdim.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ

MADDE 6

9. Bazen kesinlikle kendimin bir iŐe yaramadĐını dŐnyorum.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ
10. Bazen kendimin hi de yeterli bir insan olmadĐımı dŐnyorum.
a. OK DOĐRU b. DOĐRU c. YANLIŐ d. OK YANLIŐ

Appendix D: Turkish EAT-26

Yeme Tutum Ölçeği-26

Açıklama: Bu ölçek, profesyonel dikkat gerektiren bir yeme bozukluğunuz olup olmadığını belirlemede size yardımcı olan bir tarama ölçeğidir. Bu tarama ölçeği yeme bozukluğu tanısı konulması veya profesyonel danışmanlığın yerini alması için geliştirilmemiştir. Aşağıda yer alan formu doğru, dürüstçe ve mümkün olduğunca eksiksiz doldurunuz. Soruların doğru ya da yanlış cevabı yoktur. Tüm cevaplarınız gizli kalacaktır.

A. Bölümü: Aşağıdaki soruları tamamlayınız.

1. Doğum Tarihiniz Ay: Gün: Yıl:

2. Cinsiyetiniz: Erkek Kadın

3. Boyunuz Cm.

4. Şuanki kilonuz:

5. En Yüksek Kilonuz (Hamilelik Hariç):

6. Yetişkinlikteki En Düşük Kilonuz:

7. İdeal Kilonuz:

B. Bölümü: Aşağıda yer alan her bir ifade için size uygun gelen bir şıklı işaretleyiniz.

	Daima	Çok sık	Sık sık	Bazen	Nadiren	Hiçbir zaman
1. Şişmanlamaktan ödüm kopar.						
2. Acıktığımda yemek yememeye çalışırım.						
3. Kendimi sürekli yemek düşünürken bulurum.						
4. Yemek yemeyi durduramadığımı hissettiğim zamanlar olur.						
5. Yiyeceğimi küçük parçalara bölerim.						
6. Yediğim yiyeceklerin kalorisini bilirim.						
7. Ekmek, patates, pirinç gibi yüksek kalorili yiyeceklerden kaçınırım.						
8. Başkaları, benim daha fazla yememi tercih ediyorlar gibi gelir.						
9. Yemek yedikten sonra kusarım.						
10. Yemek yedikten sonra aşırı suçluluk duyarım.						
11. Zayıf olma arzusu zihnimi meşgul eder.						
12. Egzersiz yaptığımda, harcadığım kalorileri düşünürüm.						
13. Başkaları çok zayıf olduğumu düşünür.						
14. Vücutumda yağ birikeceği (şişmanlayacağım) düşüncesi zihnimi meşgul eder.						
15. Yemeklerimi yemek, başkalarınınkinden daha uzun sürer.						
16. Şekerli yiyeceklerden kaçınırım.						
17. Diyet (perhiz) yemekleri yerim.						
18. Yaşamımı yiyeceğin kontrol ettiğini düşünürüm.						
19. Yiyecek konusunda kendimi denetleyebilirim.						
20. Yemek yeme konusunda başkalarının bana baskı yaptığını hissedirim.						
21. Yiyeceklerle ilgili düşünceler çok fazla zamanımı alır.						
22. Tatlı yedikten sonra rahatsız hissedirim.						
23. Diyet yaparım.						
24. Midemin boş olmasından hoşlanırım.						
25. Yemeklerden sonra içimden kusmak gelir.						
26. Şekerli, yağlı yiyecekleri denemekten hoşlanırım.						
C. Bölümü: Davranışsal Sorular:						
Geçtiğimiz 6 ayda;	Hiçbir zaman	Ayda bir ya da daha az	Ayda 2-3 kez	Haftada bir kez	Haftada 2-6 kez	Günde bir ya da daha çok kez
A Durduramayacağınızı hissettiğiniz tıkmırcasına yeme ataklarınız oldu mu?*						
B Kilonuzu ve beden şeklinizi kontrol etmek için kendinizi kısıtladınız mı?						
C Kilonuzu ve beden şeklinizi kontrol etmek için laksatif (barsak söktürücü), diyet hapları veya idrar söktürücü kullandınız mı?						
D Kilo vermek ya da kilonuzu kontrol etmek için bir günde 60 dakikadan fazla egzersiz yaptınız mı?						
E Geçtiğimiz 6 ayda 9 kilodan fazla verdiniz mi?	Evet			Hayır		

*Tıkmırcasına yeme atakları: aynı şartlarda pek çok kişinin yiyebildiğinden çok daha fazla yemek ve yeme kontrolünü kaybettiğiniz hissi olarak tanımlanmaktadır.

© Copyright: EAT-26: (Garner et al. 1982, *Psychological Medicine*, 12, 871-878); D. Garner'ın izniyle adaptasyonu yapılmıştır.

58

Appendix E: Turkish Social Physique Anxiety Scale

Bu anket sizin sosyal fizik kaygılarınızla ilgilidir. Lütfen her soruyu dikkatlice okuyunuz ve size en uygun gelen kutu içine (X) işareti koyunuz. Örneğin “Fiziksel görünüşümden hoşnudum” cümlesini okudunuz. Fiziksel görünüşünüzden hiç hoşnut değilseniz “tamamen yanlış” yazılı kutunun içine (X) işareti koyunuz; fiziksel görünüşünüzden her zaman hoşnutsanız “tamamen doğru” yazan kutunun içine (X) ile işaretleyiniz.

	Tamamen Yanlış	Genellikle Yanlış	Bazen Yanlış	Bazen Doğru	Genellikle Doğru	Tamamen Doğru
1. Fiziksel görünüşümden hoşnudum.						
2. Beni çok zayıf veya çok şişman gösteren kıyafetleri giymekten hiç endişe duymam.						
3. Fiziki görünümüm hakkında takıntılı olmamayı isterdim.						
4. Diğer insanların kilom veya kas gelişimim hakkında olumsuz yargıları olduğu konusunda endişeye kapıldığım zamanlar olur.						
5. Aynaya baktığım zaman fiziksel görünüşümden dolayı kendimi iyi hissedirim.						
6. Fiziksel görünüşümün çekici olmayan bölgeleri, belirli sosyal ortamlarda sinirli olmama neden olur.						
7. Başkalarının yanımdayken fiziksel görünüşümden endişelenirim.						
8. Diğer insanlara, fiziğimin ne kadar hoş görüldüğü konusunda son derece rahatım.						
9. Diğer insanların fiziğimi incelediğini bilmek beni rahatsız eder.						
10. Fiziksel görünümümü diğer insanlara göstereceğim zaman çok utangaç olurum.						
11. Başkaları bariz bir biçimde vücuduma baktıklarında kendimi genellikle rahat hissedirim.						
12. Mayoluyken vücudumun şeklinden dolayı kendimi sıklıkla sinirli hissedirim.						

Appendix F: The Turkish IES-2

1	2	3
Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum
	4	5
	Katılıyorum	Kesinlikle Katılıyorum

1. Yağ, karbonhidrat ya da kalori bakımından zengin belirli yiyeceklerden kaçınmaya çalışırım.
2. Kendime yemeye izin vermediğim yasaklı yiyeceklerim vardır.
3. Sağlıksız bir şey yediğimde kendime kızarım.
4. Canım belirli bir yiyeceği çektiyse onu yemek için kendime izin veririm.
5. O an neyi yemeyi istiyorsam onu yemek için kendime izin veririm.
6. Neyi, ne zaman ve/veya ne kadar yiyeceğimle ilgili şeyleri dikte eden yeme kurallarını ve diyet planlarını takip etmem.
7. Bazı duygulara kapıldığımda (örn., kaygılı, depresif, üzgün) fiziksel olarak aç olmasam bile kendimi yemek yerken bulurum.
8. Fiziksel olarak aç olmasam da yalnız hissettiğimde kendimi yemek yerken bulurum.
9. Olumsuz duygularımı yatıştırmak için yemeği kullanırım.
10. Stresli olduğumda fiziksel olarak aç olmasam da kendimi yemek yerken bulurum.
11. Olumsuz duygularıyla (örn., kaygı, üzüntü) yemeğin vereceği rahatlama başvurmadan da başa çıkabilirim.
12. Sıkıldığımda sadece bir meşgale olsun diye yemek yemem.
13. Yalnız hissettiğimde rahatlamak için yemek yemem.
14. Stres ve kaygıyla başa çıkmak için yemekten başka yollar bulurum.
15. Bedenimin bana ne zaman yemek yemem gerektiğini hatırlatacağına güvenirim.
16. Bedenimin beni ne yemem gerektiği konusunda yönlendireceğine güvenirim.
17. Bedenimin bana ne kadar yiyeceğimi hissettireceğine güvenirim.
18. Açlık sinyallerimin bana ne zaman yemek yemem gerektiğini hatırlatacağına güvenirim.
19. Tokluk sinyallerimin beni yemek yemeyi ne zaman durdurmam gerektiği konusunda uyaracağına güvenirim.
20. Bedenimin bana yemek yemeyi ne zaman durdurmam gerektiğini hatırlatacağına güvenirim.
21. Çoğu zaman besin değeri yüksek yiyecekleri yemeyi arzu ederim.
22. Çoğunlukla bedenimin daha iyi bir performans göstermesini sağlayacak yiyecekler yerim.
23. Çoğunlukla bedenime enerji ve dayanıklılık sağlayacak yiyecekler yerim.

Appendix G: The Modified Turkish IES-2 and Scoring Instructions

1	2	3
Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum
	4	5
	Katılıyorum	Kesinlikle Katılıyorum

1. Yağ, karbonhidrat ya da kalori bakımından zengin belirli yiyeceklerden kaçınmaya çalışırım.
2. Kendime yemeye izin vermediğim yasaklı yiyeceklerim vardır.
3. Sağlıksız bir şey yediğimde kendime kızarım.
4. Canım belirli bir yiyeceği çektiyse onu yemek için kendime izin veririm.
5. O an neyi yemeyi istiyorsam onu yemek için kendime izin veririm.
6. Bazı duygulara kapıldığımda (örn., kaygılı, depresif, üzgün) fiziksel olarak aç olmasam bile kendimi yemek yerken bulurum.
7. Fiziksel olarak aç olmasam da yalnız hissettiğimde kendimi yemek yerken bulurum.
8. Olumsuz duygularımı yatıştırmak için yemeği kullanırım.
9. Stresli olduğumda fiziksel olarak aç olmasam da kendimi yemek yerken bulurum.
10. Olumsuz duygularıyla (örn., kaygı, üzüntü) yemeğin vereceği rahatlama başvurmadan da başa çıkabilirim.
11. Sıkıldığımda sadece bir meşgale olsun diye yemek yemem.
12. Yalnız hissettiğimde rahatlamak için yemek yemem.
13. Stres ve kaygıyla başa çıkmak için yemekten başka yollar bulurum.
14. Bedenimin bana ne zaman yemek yemem gerektiğini hatırlatacağına güvenirim.
15. Bedenimin beni ne yemem gerektiği konusunda yönlendireceğine güvenirim.
16. Bedenimin bana ne kadar yiyeceğimi hissettireceğine güvenirim.
17. Açlık sinyallerimin bana ne zaman yemek yemem gerektiğini hatırlatacağına güvenirim.
18. Tokluk sinyallerimin beni yemek yemeyi ne zaman durdurmam gerektiği konusunda uyaracağına güvenirim.
19. Bedenimin bana yemek yemeyi ne zaman durdurmam gerektiğini hatırlatacağına güvenirim.
20. Çoğunlukla bedenimin daha iyi bir performans göstermesini sağlayacak yiyecekler yerim.
21. Çoğunlukla bedenime enerji ve dayanıklılık sağlayacak yiyecekler yerim.

Puanlama Prosedürü:

1. 1, 2, 3, 6, 7, 8 ve 9. maddeleri ters olarak skorlayın.
2. *Toplam IES-2 Skoru*: Bütün maddeleri toplayın ve 21'e bölün.
3. *Şartsız Yemeye İzin Verme (UPE) Alt Ölçeği*: 1, 2, 3, 4 ve 5. maddeleri toplayın ve 5'e bölün.
4. *Duygusal Değil Fiziksel Sebeplerle Yeme (EPR) Alt Ölçeği*: 6, 7, 8, 9, 10, 11, 12 ve 13. maddeleri toplayın ve 8'e bölün.
5. *Açlık ve Doğunluk İpuçlarına Güvenme (RHSC) Alt Ölçeği*: 14, 15, 16, 17, 18 ve 19. maddeleri toplayın ve 6'ya bölün.
6. *Beden-Yiyecek Seçim Uyumu (B-FCC) Alt Ölçeği*: 20 ve 21. maddeleri toplayın ve 2'ye bölün.