

The Influence of Family Dynamics on Adolescent Disordered Eating Behaviours: Integrating Systemic Explanations.

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ABSTRACT

Numerous studies have tried to capture how parenting contributes to the development of disordered eating or the presence of Eating Disorder (ED) pathology within family members. There has been limited research combining different angles of family dynamics in order to explain the presence, possibility of early intervention, and prevention of EDs, in adolescence. The present study began with the premise that parents may have a crucial role in predisposing their children to EDs development. The study consisted of two phases. In Phase I, three hundred and twenty-seven (327) adolescents responded to a series of self-administered questionnaires (EAT-26, RADS-2, SCARED, PBI, PAQ, FACES-III, PACS) aiming to investigate how family dynamics influence may affect eating attitudes. In Phase II, parents of children who rated high in the EAT-26 questionnaire (indicating the presence of disordered eating pathology) were allocated into two groups. The experimental group consisted of 11 parents and received a series of five psychoeducation seminars. The sessions focused on explaining the background and context of EDs, alongside with an emphasis in teaching ideal parenting behaviours and healthy parent-child interactions. The control group consisted of 10 parents and received a series of five psychoeducation seminars focusing on providing only information about EDs background. Results from Phase I suggested that female adolescents were more likely to experience problematic eating behaviours, with a specific tendency to evoke more dieting behaviours. Stressful life events were more likely to provoke disordered eating behaviours in both genders. High levels of disordered eating attitudes were associated with enmeshed cohesion and authoritarian parenting styles. Gender, exercise, therapy, BMI, and cohesion predicted disordered eating pathology. Findings from phase II showed that parents in the experimental group reported decreased levels of disordered eating, improved parenting, and healthier cohesion and adaptability structure after psychoeducation compared to the control group which showed only decreased disordered eating behaviours. The study suggested that family dynamics in the form of parenting styles and family structures might predispose children in developing EDs. Enmeshed boundaries and authoritarian parenting style increase the likelihood of disordered eating. These parenting parameters are best to be avoided by early prevention/intervention primarily in the level of parents.

KEYWORDS: Adolescents; Disordered eating; Eating behaviours; Family dynamics; Parenting; Systemic theory.

CHAPTER 1

INTRODUCTION

"If there is anything that we wish to change in the child, we should first examine it and see whether it is not something that could be better changed in ourselves".

Carl Jung

Eating disorders (EDs) are a group of conditions that affect almost 70 million people of all ages and genders worldwide (NEDA, 2018). Anorexia Nervosa (AN), Bulimia Nervosa (BN), and Binge Eating Disorder (BED) are considered to be the three most common categories in the United States and Western society (DSM-5, APA 2013). EDs happen to be an important world-problem phenomenon among people who give a lot of emphasis to their body weight, as an attempt to achieve body control (Schutte & Malouff, 1995). It is one of the most common psychiatric conditions, presented with a disruption in the routine of food intake (Stice, 2002). All three subtypes of EDs seem to carry similar aetiology, although they differ in their manifestation.

AN is defined as an emotional disorder characterized by an obsessive desire to lose weight, manifested in the form of refusing to eat. BN is defined as an emotional disorder characterized by a distorted body image and an obsessive desire to lose weight in which bouts of extreme overeating are followed by fasting or self-induced vomiting or purging. BED is defined as an emotional disorder characterized by the consumption of large quantities of food in a short period of time (DSM-5, APA 2013).

Nowadays, studies have shown that the aetiology of EDs appears to be a combination of genetic/biological, (Wade, Bulik, Neale, & Kendler, 2000) developmental, and sociocultural factors (Canetti, Kanyas, Lerer, Latzer, & Bachar, 2008). There may be some genetic vulnerability (family aggregation) running in the families, coming either from the mother's or the father's line (Eisler, 2005; Treasure, 2005). There is an underlying perception of psychosomatic family processes, which play a crucial role on the development, maintenance, and treatment of Eds (Selvini-Palazzoli, 1978; Coe, Davis, & Sturge-Apple,

2018). This does not however imply that the absence of these factors eliminates the possible onset and/or maintenance of EDs. Additional factors that may trigger the occurrence and progression of EDs include: a sudden death, a disappointment, parental conflicts or divorce, parent's loss of empathy towards the child, parent's failure to provide sufficient response to the child's inner emotional self – factors which are all particularly vital in the development of EDs and important to be identified (Brunch, 1973; Brunch, 1982; Beck, 1995).

The general thesis perspective emphasized in the current study is the importance of investigating the contribution of different family dynamics in the presence of EDs and addressing the role of parents in the prevention of disordered eating in adolescents. The study first explores the impact of important family dynamics and emotional closeness parameters in the life of adolescents, and uses the outcomes of this research to build an intervention program, aiming to prevent disordered eating behaviours or even the development of EDs in adolescence.

Adolescence is the preferred population in this research, since it is the most crucial stage of human development, where physical, emotional, mental, moral, spiritual, sexual, and social aspects are rapidly under change. The period between childhood to adulthood is defined by various changes, with the child's transition from parental dependence to autonomy (Heyes & Hiu, 2019). According to an evaluation of adolescents' emotional and developmental maturity, studies suggest that ED pathology may arise between the ages of 15 to 19, with lower prevalence in early adolescence (Lewinsohn et al., 2000; Stice, Killen, Hayward, & Taylor, 1998). The range of ages 15 to 19, as well as, the transition from dependency to autonomy and maturity impact adolescents' development, becoming more vulnerable to mental illness (Casey, Jones, & Hare, 2008). What makes adolescents more vulnerable is the crucial period where a number of intrinsic and external factors influence and shape adolescents' development. Such factors might be traumatic events (such as neglect or abuse), gender, drug abuse (cannabis), culture and ethnicity (Heyes & Hiu, 2019). Therefore, possible changes in their food consumption and/or feelings of unhappiness are common risk factors for the onset of EDs. In this study, relevant information that is essential to the understanding of the adolescents'

background with disordered eating behaviour and family functioning is examined - thus family dynamics and parental emotional closeness will be addressed, and are defined as the patterns of interactions and relations between the parent – child relationship. Disordered eating is defined as a person's worry of body image and as a result eating patterns are disrupted. Dieting, bulimia, food preoccupation, and oral control are the three disordered eating parameters used.

The presence of EDs in the family system may signal the picture of a “dysfunctional family” due to the psychosomatic symptomatology of the child (Vandereyken, 1987). The systemic approach addresses factors, which may contribute to the understanding of EDs. Many well-recognised family therapists like Minuchin, Selvini-Palazzoli, and White have developed a rich theoretical and practical approach upon EDs (Rhodes, 2003). Family therapists emphasise the major role of disturbed family relationships in the aetiology and course of EDs. Research findings suggest that an enmeshed, overprotective family structure, with weak or/and diffuse individual boundaries increase the likelihood of Eds (Minuchin, 1978; Minuchin, Rosman, & Baker, 1974; Coe, Daview, & Sturde-Apple, 2018). In more dysfunctional systems, parents tend to be less caring, more controlling (Canetti, Kanyas, Lerer, & Bachar, 2008), exhibit more problematic communication styles (Karwautz et al., 2001; Sights & Richards, 1984), and present lower levels of parental expectations (Young, Clopton, & Bleckley, 2004). While there is no specific pattern of family functioning based on EDs, research suggests an eating disordered family to be more dysfunctional compared to normal families.

Although, numerous studies have addressed the influence of important family dynamic variables (such as parenting styles, parental bonding, parent-child relationship, and family structure) on disordered eating, they have examined them isolated from one another (Baumrind, 1991; Canetti, Kanyas, Lerer, Latzer, & Bachar, 2008; Enten & Golan, 2009; Fernandez-Aranda et al. 2007; Golan & Crow, 2004; MacPhee & Barkhouse, 2010; Haycraft & Blissett, 2010; Lucas, 2009; Surgenor & Maguire, 2013) and happened some time ago. As well, there are few studies integrating most family dynamic parameters, addressing the likelihood of disordered eating development and prediction of EDs (Bailey, 1991; Kluck 2008; Topham, 2011).

In addition to that, the need for early intervention is dramatically rising in the adolescent population. When peak onset of EDs happens to be in adolescence, this suggests the need of an early intervention that should include parents. Therefore, the second step of the study is the creation of an early intervention program, where psychoeducation is used to give parents important information about EDs, as well as for the teaching of ideal parenting behaviours and healthy parent-child interactions. The need for early parent psychoeducation, in an effort to intervene early in the life of adolescents, is mostly influenced by the work of Nicholls & Yi (2012) on the Surrey Early Intervention for ED treatment approach, and Lock & La Grange (2013) treatment manual on AN. Both acknowledged and emphasized the important role of parents in the treatment of EDs at the beginning of their management plan. Parents are not to be blamed of the occurrence of EDs, especially as feelings of guilt are frequently present. But it is the idea of the constitution of these families, which places at high-risk adolescents developing EDs.

The current parent intervention is based on the systemic approach. Parental intervention through a systemic perspective had a great contribution in theory and practice, as it gave light to the understanding of the disorder. Minuchin (1974) who has been known for his great input into the systemic way of thinking, worked with patients suffering with EDs and he emphasized that EDs have something to do with a psychosomatic symptom in families (Rosman & Baker, 1978). This is the reason that the psychoeducation approach mentioned above values a systemic group intervention - to enroll parents in the prevention of the disorder. This study offers a review and synthesis of EDs literature, in addition to a family system framework for conceptualizing the relationship of family dynamics in the construct of disordered eating.

CHAPTER 2

LITERATURE REVIEW ON EATING DISORDERS

2.1. Historical Background

If we go back to historical background records, anorexic young men and women's description of the illness was remarkably identical in what we today called anorexia nervosa (AN): voluntary food restriction (Treasure, 2005). Robert Morton, a physician, formed a first report about anorexia nervosa illness in 1689 in England, reporting the medical history and process of the illness. Afterwards, AN became an identified psychological disorder by two autonomous reports, one from William Gull in England and the other from Charles Lasegue in France (Mitchell, 1980).

First reports suggest that the presence of AN, where the patients refuse to eat anything, leads to severe loss of weight, amenorrhea, constipation, slow metabolic rate, oedema of the ankles, over activity, and absence of any organic disease. All of this symptomatology was initially acknowledged as “apepsia hystera”, but later on was named as “anorexia nervosa”. The symptomatology included the absence of pepsin identified in both genders (Mitchel, 1980). Gull believed that AN is not caused by an organic factor, but is present due to psychological factors - mostly involving the whole family system (Mitchell, 1980). Bulimia Nervosa (BN) first came in the picture in 1903, where a French doctor Pierre Janet described patients with bulimic behaviours (Abraham & Llewellyn-Jones, 2001). It was not until 1979, that Gerald Russel published the first official paper on BN (Russel, 1979). BN is defined as a hunger for eating large amounts of food at one time. BED was first noted in 1959 by a psychiatrist called Albert Stunkhard, who described an eating pattern of marked consumption of large amounts of food at irregular intervals (Abraham & Llewellyn-Jones, 2001). At the beginning, BED was included under the BN diagnostic criteria, but gained recognition as now a separate disorder in 2013 (DSM-5, APA, 2013). Table 2.1 presents a descriptive summary of EDs in DSM-5 (APA, 2013, p.350).

Table 2.1. Summary of eating disorders in DSM-5.

Eating Disorders	Description
Anorexia Nervosa	Significantly underweight, Fears gaining weight, Body image disturbance (e.g., self-worth is excessively influenced by shape/weight), and In females, amenorrhoea.
Bulimia Nervosa	Binge eating episodes, Inappropriate weight-control behaviours (e.g., self-induced vomiting), and Self worth is excessively influenced by shape/weight.
Binge Eating	Binge eating episodes (eating much more rapidly than normal), Lack of control while eating, Occurrence at least once a week for three months, and Not associated with recurrent user of inappropriate compensatory Behaviours.
Eating Disorder not Otherwise Specified (EDNOS)	Disturbances of eating that do not meet criteria for anorexia nervosa or bulimia nervosa. Examples include: <ul style="list-style-type: none"> - All of the criteria for anorexia nervosa are met except for amenorrhea, - All of the criteria for bulimia nervosa are met except that the binge eating or weight-control behaviours occur less than twice a week, and - Binge eating episodes in the absence of inappropriate weight control behaviours (i.e., binge eating disorder).

2.2. Types of Eating Disorders

2.2.1. Anorexia Nervosa (AN)

Russell (1970) clearly defined the main criteria for diagnosing Anorexia Nervosa. AN is a serious illness, which develops insidiously in adolescence and early adulthood, but can also be present in other critical periods (crises) of a person's life. The lifetime prevalence of AN in adults is 0.6% and it is three times higher among females (0.9%) compared to males (0.3%) (NIMH, 2017).

The highest at-risk group are women between 15 to 22 years (Eisler, Simic, Russell, & Dare, 2007) since the inability to maintain a weight, which is compatible with health, becomes an extremely difficult and

complicated task. AN is more prevalent and common (90% of individuals meet the criteria) in industrial societies. Gaining weight is perceived by the person to be a terrifying process, which must be avoided in any possible way. The person does not necessarily lose appetite, but they are trying to meet a goal of reaching a perceived “ideal” weight (Treasure, 2005).

According to the DSM-5 (2013), individuals with AN are characterized by (a) the inability and (b) refusal to maintain body weight correspondent to the appropriate age and height. The individual decreases or avoids the intake of high-calorie foods to a minimum level, as a way of not gaining any additional weight, engaging in excessive exercise, and purging. AN involves an intense fear of becoming fat, unrealistic perception of body shape and weight, denial of the condition, and low body weight (Stice, 2002). Table 2.2 shows the diagnostic criteria of AN, according to DSM-5 (APA, 2013, p.350).

Table 2.2. Diagnostic criteria of AN.

- A. Restriction of energy intake relative to requirements leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. Significantly low weight is defined as a weight that is less than minimally normal or, for children and adolescents, less than that minimally expected.
- B. Intense fear of gaining weight or becoming fat, or persistent behaviour that interferes with weight gain, even though at a significantly low weight.
- C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or persistent lack of recognition of the seriousness of the current low body weight.

Subcategories of anorexia nervosa:

- Restricting Type: This is a subtype that is typically associated with the stereotypical view of anorexia nervosa. The person does not regularly engage in binge eating.
- Binge-Eating/Purging Type: The person regularly engages in binge eating and purging behaviors, such as self-induced vomiting and/or the misuse of laxatives or diuretics.

Unfortunately, AN has the highest premature mortality rates of all psychiatric conditions (Steinhausen, 2002) and becomes a way of life for these persons without an end point (Treasure, 2005). Consequently, as

mentioned earlier, physical damages such as bone loss, amenorrhea, hypokalaemia, even death (Sharp & Freeman, 1993; Zipfel et al., 2003), emotional and mood changes such as low self-esteem, absence of self-regulation, and various damages (Channon & De Silva, 1985) are deficits that could occur (Lock & Fitzpatrick, 2009).

There is a need to clarify at this point that having AN is neither a selfish, stubborn naughtiness of the child, nor does it imply that parents did badly in raising their children correctly. This is an expression of emotions of unhappiness and distress, resulting in this behaviour. The aetiology and presentation of the disorder is commonly related with stressful life events. In these important years of adolescence, parenting appears to play an important role in the occurrence and maintenance of EDs, since research has found that familial predisposition (especially first-degree biological relatives) increase the chance of AN presentation (MacPhee & Barkhouse, 2010).

2.2.2. Bulimia Nervosa (BN)

Russell's criteria (1979; 1983) reflected in the major characteristics of Bulimia Nervosa, which afterwards the disorder took its name. The overall prevalence of BN is 0.3% and is five times higher among females (0.5%) compared to males (0.1%) (NIMH, 2017). It is more prevalent and common in industrialized societies, affecting mostly women in late adolescence and early adult life (Hurt, Reznikoff, & Clarkin, 1991; Barker, 2003).

According to the DSM-5 (2013), an individual with BN is characterized by a repeated and uncontrollable intake of food, and/or consumption of large amounts of food (binge eating behaviour) in a very short period of time. The individual tends to attempt to get rid of the food consumed afterwards, most of the times by purging (80-90% with self-induced vomiting), using laxatives, diuretics, or/and by engaging in excessive exercise (Barker, 2003; Fairburn & Christopher, 1995). BN involves the fear of gaining weight, thoughts of losing weight and a disturbed perception of body shape which influence self-evaluation.

However, the individual's weight usually corresponds to the appropriate weight for their age and height.

Table 2.3 shows the diagnostic criteria of BN, according to DSM-5 (APA, 2013, p.350).

Table 2.3. Diagnostic criteria of BN.

- A. Recurrent episodes of binge eating. An episode of binge eating is characterized by BOTH of the following:
 1. Eating in a discrete amount of time (ex: within a 2-hour period) an amount of food that is definitely larger than what most individuals would eat in a similar period of time under similar circumstances.
 2. Sense of lack of control over eating during an episode.
- B. Recurrent inappropriate compensatory behaviour in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise.
- C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least once a week for three months.
- D. Self-evaluation is unduly influenced by body shape and weight.
- E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

The minimum level of severity is based on the frequency of inappropriate compensatory behaviours (see below). The level of severity may be increased to reflect other symptoms and the degree of functional disability.

Mild: An average of 1-3 episodes of inappropriate compensatory behaviours per week

Moderate: An average of 4-7 episodes of inappropriate compensatory behaviours per week

Severe: An average of 8-13 episodes of inappropriate compensatory behaviours per week

Extreme: An average of 14 or more episodes of inappropriate compensatory behaviours per week.

2.2.3. Binge Eating Disorder (BED)

The overall prevalence of binge eating disorder is 1.2% and it is twice as high among females (1.6%) compared to males (0.8%). It is more prevalent and common in industrialized countries, affecting mostly adult life (NIMH, 2017). According to the DSM-5 (2013), individuals with Binge Eating Disorder (BED) are characterized by lack of control of food intake in recurrent episodes of binge eating behaviour. BED is not

associated with any recurrent purging episodes or use of inappropriate compensatory behaviours similar to BN. It is a broader pattern of BN disinhibiting dietary restraints (Timothy, 1997). Most of the times, individuals who are under restrictive diets showed engagement in disinhibited eating under various circumstances (Heatherton, Polivy, & Herman, 1990). Unfortunately, eating is one way in which somebody can achieve body control (Schutte & Malouff, 1995) - though the precise cause of the disorders is not yet clearly understood (Biederman, Ball, Monuteaux, Surman, Johnson, & Zeitlin, 2007). Table 2.4 shows the diagnostic criteria of BED, according to DSM-5 (APA, 2013, p.350).

Table 2.4. Diagnostic criteria of BED.

Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:

1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than what most people would eat in a similar period of time under similar circumstances.
2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).

B. The binge-eating episodes are associated with three (or more) of the following:

1. Eating much more rapidly than normal.
2. Eating until feeling uncomfortably full.
3. Eating large amounts of food when not feeling physically hungry.
4. Eating alone because of feeling embarrassed by how much one is eating.
5. Feeling disgusted with oneself, depressed, or very guilty afterward.

C. Marked distress regarding binge eating is present.

D. The binge eating occurs, on average, at least once a week for 3 months.

The minimum level of severity is based on the frequency of episodes of binge eating (see below). The level of severity may be increased to reflect other symptoms and the degree of functional disability. Mild: 1-3 binge-eating episodes per week

Moderate: 4-7 binge-eating episodes per week

Severe: 8-13 binge-eating episodes per week

Extreme: 14 or more binge-eating episodes per week.

2.3. Aetiology

2.3.1. Genetic / Biological Predisposition

There is evidence suggesting that EDs have a genetic component. It is important to note that biological factors alone are insufficient to explain the development of EDs and acknowledge their significance as they increase the risk of the disorders in a vulnerable group of people (Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004). For example, specific candidate genes might be involved in neurotransmitter pathways (responsible for passing on EDs within biological systems) regulating weight, food intake, metabolism, appetite, mood, and reward-pleasure responses (Gorwood, Bouvard, Mouren-Simeoni, Kipman, & Ades, 1998; NEDA, 2018). Also, studies have referred to a deregulation of the serotonin neurotransmitter system (Kaye et al., 2005) or the neuroendocrine (hormonal) system (Eckert, Pomeroy, & Raymond, 1998) involved in the control of appetite and hunger. Last, abnormalities in the function and structure of the brain are considered to contribute to the presentation of EDs (Frank, Bailer, Henry, Wagner, & Kaye, 2004).

This genetic influence is more likely to be an explanation of the relationship between inherited genes and the complicated interaction between various genes and non-inherited genetic factors. Biological causes of EDs are not yet understood and are still under investigation, as most of the studies conducted until recently focus on the duration of the acute or recovery phase (NEDA, 2018).

Scientists research possible underlying biological/biochemical abnormalities that cause EDs. Specifically, chemicals that are released from the brain which control the feeling of hunger, digestion, or appetite have been found to be deregulated and unbalanced in some individuals (Eckert, Pomeroy, & Raymond, 1998). Still, the explanation or implications of these findings are still under investigation. Along with the above-mentioned factor that would enhance the initiation of a disordered eating pattern, attention has also been given to family systems and family life - EDs tend to run in families. It is important to highlight the interplay of environmental and biological factors in the development of EDs, especially in AN (Bulik, Sullivan, Wade, & Kendler, 2000). Research has tried to decode specific patterns of family functioning, and

results showed a problematic family system. While there is no specific pattern, research suggests an eating disordered family to be more dysfunctional compared to control groups.

2.3.2. Social / Cultural Influences

Fashion/Media

The fashion industry may be one of the leading causes of EDs. Western culture values skinny body types throughout portrayed in mass media such as television, magazines and advertising; the thin body like those of super models, which is promoted as the acceptable body shape and is certainly unrealistic for the average person. Also, cultural values emphasise dieting behaviours as something normal and even required among young women as a mean to achieve a preferable body shape. This pressure from society or peers about being thin, in combination with a family system holding the same belief may consequently lead to the development of the disorder (Treasure, 2005) - internalizing the thin socio-cultural idea, with narrow definitions of beauty (including men and women of specific body shape and weight) (NEDA, 2018). As thinness is correlated with female beauty, a very slim figure is a sign of mastery, good health, and self-control, without taking into consideration the method in which someone will achieve the control of body weight (Jung, 1991). Therefore, cultural pressures glorify thinness for women and muscularity in men placing significant value on obtaining the “perfect body” (NEDA, 2018). Without the correct reframing from parents about this problematic belief, individuals will unfortunately internalize this distorted idea of “ideal body shape” predisposing them to the development of body dissatisfaction, which is more likely to result in ED pathology (NEDA, 2018).

One common piece of information transmitted from the media is the idea that the lower the weight of a person the healthier they are (health perception), which is certainly not valid (Ogdon, 1990). This distorted belief results in cultural norms, that lead to adolescents giving emphasis to their physical appearance and not their inner strengths, capacities, talents, and qualities (NEDA, 2018).

Idea of Bad Foods

Another major causal factor may be the fearfulness of food intake as a risky indicator that some foods are bad for health. As research is incomplete and always evolving in these matters concerning the meaning of ‘bad’ and ‘good’ foods, most people worry about the danger of food ingredients. While sometimes food is regarded as suspicious and dangerous, individuals in their attempt to protect themselves of consuming the “bad” food (which may contain germs or disasters), end up avoiding them. Consequently, adopting compulsive and/or “healthy” eating behaviours because of the possible dangers of food may lead people to meet ED criteria. This is the reason that in most cases individuals with EDs (and specifically AN) have sometimes co-current problems of obsessive-compulsive behaviours (Treasure, 2005).

According to Garfinkel and Newman (2001), eating behaviours may fall in a continuum between the healthy eating behaviours and the already diagnosed individuals with eating disorders, including those incidents falling in the grey area (such as partial syndromes and obsessive dieting) (Button & Whitehouse, 1981). Research findings acknowledged that the biggest percentage is individuals showing “at-risk” eating behaviours. These individuals may be considered as those who either display problematic and dangerous eating behaviours or those who cannot clearly be diagnosed. A 33% accounted for the individuals presenting with “healthy” eating behaviours, a 64% accounted for the individuals who are presented with mostly “at risk” eating behaviours, and a very low prevalence rate of roughly 3% accounted for diagnosed EDs (Garfinkel & Newman, 2001).

Ethnic Background

Another social factor that predisposes a person to develop EDs or disordered eating behaviours is the increased level of stress which may be explained by ethnic and/or racial characteristics, their size and/or weight, and/or other kinds of forms of prejudice and discrimination. For example, some studies (Alegria et al., 2007; Robinson et al., 1996) suggested that Latina/Hispanic, African American, Asian American women have similar or much higher prevalence of EDs compared to white women, with binge eating (BED) being

higher in the first groups. Research suggested that body dissatisfaction, low self-esteem, substance abuse, and negative affect were main characteristics of Latinas, resulting in a positive correlation with EDs (Granillo, Jones-Rodriguez, & Carvajal, 2005). Additionally, cultural elements, including values, norms, and lifestyle behaviours are main contributors to risk for EDs (Alegria et al., 2007).

2.3.3. Psychological Factors

Behaviours and Characteristics

Psychological factors seem to have a major role in the aetiology, as well as treatment of EDs. Along with the parameters mentioned above, psychological behaviours and characteristics are essential to the explanation and intervention. Individuals often experience intense negative emotions (for example feelings of loneliness, low self-esteem, inadequacy or lack of control, anxiety, depression, and anger) with a difficulty to express these emotions to significant others, show increased aggression and irritation, obsessive overconcern over health and fitness (NEDA, 2018). Additionally, adolescents may often have difficulties in interpersonal relationships or may experience negative comments (being teased or ridiculed) most of the times related to their appearance, size, or weight (Ogden, 2007). All these elements may contribute to the presence of the EDs.

Personality Characteristics

Research has addressed specific personality characteristics, which predispose a person to EDs. Harm avoidance, pessimism, shyness, and low self-esteem have been linked with AN. High levels of novelty seeking, impulsivity, and emotional dysregulation have been linked with BN. High levels of harm avoidance and novelty seeking have been also linked with BED (NEDA, 2018).

More specifically, neuroticism, obsessiveness, preoccupation and perfectionism are three important characteristics, which have a major role in facilitating EDs (Bardone-Cone et al., 2007, Sharpe et al., 2018). Research has addressed the relational effect of perfectionism with EDs. Individuals with AN and BN are

quite competitive and drive to succeed. This perfectionism results in comparing themselves with others, obsessing in thoughts and preoccupied for instance with their academic or athletic success. These individuals care about what other people think of them rather than what they think of themselves. As drive to success could be constructive, on the other hand, it can be self-defeating, become stressful when they fail to live up to their expectations, maintaining ED pathology (Bardone-Cone et al., 2007).

Traumatic Experiences

Individuals who have experienced traumatic events, for example physical, verbal, or sexual abuse during their life may initially develop a disordered eating behaviour and be more predisposed to EDs. An important risk factor examined is the correlation between child sexual abuse (CSA) and EDs. CSA is currently established as a risk factor in relation to the onset and development of EDs, as well as in increasing the likelihood of the disorders' development (Stice, 2001). Theoretically, the relationship could be explained by the following link: CSA may result in increased or uncontrollable eating (binge eating/bulimia) (Perry, Pollard, Blakley, Baker, & Vigilante, 1995) that will eventually lead to the presence of self-hatred, self-dislike, poor self-esteem - resulting to a person feeling out of control, and then compensating by increasing control through self-starvation (Kearney- Cooke & Striegel-Moore, 1996; Schwartz & Gay, 1996). Studies have tried to examine CSA and some aspects of EDs without any real outcome. Research focused on various components of ED and CSA in order to reach a concrete explanation. Lacking in theory and research, it is challenging to conclude precisely how ED and CSA are related (Smolak & Murnen, 2002), though any traumatic event or crises in the child's life may lead to possible eating disordered pathology.

Negative Life Events

Research in the area has focused on the relationship between EDs and occurrence of stressful events (Raffi, Rondini, Grandi, & Fava, 2000; Wolff, Crosby, Roberts, & Wittrock, 2000; Grilo et al., 2012), with abnormalities in both physiological (objective) and self-report (subjective) reactions to such events (Crowther,

Sanftner, Bonifazi, & Shepherd, 2001; Koo-Loeb, Pedersen, & Girdler, 1998; Messerli-Burgy, Engesser, Lemmenmeier, Steptoe, & Laederach-Hofmann, 2010). In addition to the research which focused on the impact of singular negative events in an individual's life, another body of literature has also emphasized the influence of daily hassles, suggesting a cumulative effect of those minor tensions in significantly disturbing overall psychosocial functioning and mood (e.g., Baker, 2006; Mroczek & Almeida, 2004; Piazza, Charles, Sliwinski, Mogle, & Almeida, 2012).

Specifically, studies investigated this hypothesis and found that even if there was not a significant change in the daily hassles of individuals with eating disorder problems (Wolff et al., 2000), those individuals were more likely to perceive daily hassles as more stressful compared to a control group (Crowther et al., 2001). Additionally, daily/minor hassles were significantly associated with binge eating episodes (Woods, Racine, & Klump, 2010) on a daily basis. Taking into consideration these findings, stressful life events in adolescence are more likely to play a critical role, when negative emotions are experienced in response to those events (Beck, 1995). Additionally, another study showed that emotions of dissatisfaction and depression are correlated with disordered eating behaviours, such as binge eating, dieting and unhealthy weight control behaviours (Sharpe et al., 2018).

An interesting study from the University of Minnesota analyzed data from a clinical sample of individuals experiencing eating disorders and investigated how transitional life events may trigger disordered eating. Participants mentioned that six factors triggered their eating disorders and are more likely to trigger anorexia or bulimia: (a) school transition, (b) relationship changes, (c) death of a family member or close friend, (d) abuse, sexual assault or incest, (e) changing homes or jobs, and (f) illness or hospitalization (Berge, Loth, Hanson, Croll-Lampert, Neumark-Sztainer, 2012).

Comorbidities with Depression and Anxiety

Depression and anxiety are viewed as two of the most prevalent psychological disorders found mostly in children and the adolescent population. Evidence suggest that anxiety and depression (a) are two of the

most common experiences, and (b) foreshadow the development of eating disorders (Lynskey, 1998). Both depression and anxiety are often related with various negative outcomes, for instance, body image dissatisfaction and disordered eating behavior (Measelle, Stice, & Hogansen, 2006; Fulkerson, Sherwood, Perry, Neumark-Sztainer, & Story, 2004), with individuals resulting to imbalanced dietary patterns and unhealthy emotional eating behaviours (Adam & Epel, 2007; Dallman et al., 2003). Also, adolescents' perceived depression has been associated with a diet less in fruits and vegetables, more snacks, and more fatty foods (Simon, Wardle, Jarvis, Steggles, & Cartwright, 2003; De Vriendt et al., 2011).

While anxiety and depression are common conditions present among children and adolescents, both are seen to be comorbid with other conditions. Some children and adolescents exhibit psychopathology in severely distressed close relationships and have chronic health problems (Newman, Moffitt, Caspi, & Silva, 1998; Richards & Perri, 2002). Numerous epidemiological studies have suggested that comorbidity is very common and it is discovered more often in childhood and adolescence (Nottlemann & Jensen, 1995). Also, studies established a comorbid relationship between depression and anxiety disorders and disordered eating attitudes (Johnson & Wardle, 2005).

Family Factors

One very important factor is the quality of families, which plays a significant role in the onset, and/or maintenance of the illness (Cook-Darzens, Doyen, Falissard & Mouren, 2005). As Minuchin (1974) pointed out, a psychosomatic family is characterized to be inflexible, with enmeshed boundaries, avoiding conflicts, and most of the times extremely overprotective. These combined characteristics may exacerbate the symptoms' appearance by suppressing the child's self-regulation, autonomy or/and emotional expressions. This perspective has been examined in numerous studies and it is interesting to understand the family dynamics involved in the predisposition to EDs. The current aspect is extensively revisited in this study (see page 46), since this is the main goal and perspective of the current research - to understand how parenting affects adolescents' disordered eating behaviours.

2.4. Treatments

As addressed earlier, EDs are conceptualized as a complex interplay of biological, psychological, and social factors. Therefore, a multidisciplinary team of mental, medical, and nutritional professionals is required to evaluate the severity of the disorder and promote the best-individualized plan for the patient (Fisher, Golden, & Katzman, 1995). Historically, ED treatment care was a lengthy stay at the hospital with strict supervision and mealtime schedules. Nowadays, hospitalisation has been sharply minimised and applied only in cases of severe EDs presentation.

Although Sir William Gull coined AN 100 years ago, only a few research studies have evaluated the effectiveness of various EDs' treatments (Hay, Bacaltchuk, Claudino, Ben-Tovim, & Yong, 2003). This is because (a) EDs are relatively rare, (b) need long-term treatments, and (c) are associated with high dropout rates (NICE, 2004). Recognizing the severe presentation of EDs, the need to develop and evaluate different prevention and intervention methods is a high priority for future research. To begin with, in order to understand how we can prevent the development of EDs early on, it will be beneficial to start by addressing existing treatment methods of EDs, such as (a) inpatient treatments (for example: inpatient or partial hospitalization, residential treatment centers), (b) pharmacological treatments, and (c) out-patient treatments (for example: outpatient or intensive outpatient) (Yager, Anderson, & Devlin, 2000; Kaplan, 2002).

2.4.1. Inpatient Treatment

Severe cases with EDs are hospitalised for a small period of time and follow an inpatient hospital treatment program. Reasons constituting a patient to be eligible for an inpatient treatment setting, include: (a) severe weight loss (refusal to eat), (b) presence of serious mental or physical health complications (for example heart disorder, dehydration, metabolic disturbances, comorbid mental disorders, etc.), (c) engagement with vomiting, bingeing, or laxative abuse leading to dangerous medical outcomes, (d) suicidal attempts, (e) no improvement from other outpatient or day treatments, and (f) presence of a limited and unsupportive family environment (Sharp & Freeman, 1993).

A study by Treat, McCabe, Gaskill, and Marcus (2008) points that the care continuum model of treatment (day hospital treatment) is a very beneficial program for patients who are particularly young. Reasons include that the patient is hospitalised for a very short period of time, and leave from the inpatient hospitalisation with higher weight, less symptoms, greater commitment, weight regain throughout the treatment and recovery phase, and higher chances for short-term outcomes.

The American Psychiatric Association recognizes the importance of day hospital treatment for EDs (Fittig et al., 2008), as day hospital treatment is much cheaper than inpatient hospital settings (Kaplan & Olmsted, 1997). According to a study by Crisp et al., (1991), there are no significant differences between inpatient and outpatient treatments, after one year, based on 90 severely anorexic patients. This result indicates that both inpatient and outpatient treatment groups show improvements, with day hospital planned treatment resulting in small number of people engaging with binge eating or purging at the end of their treatment (Olmsted, Kaplan, & Rockert, 2003). To date, despite little research done on the short and long-term effectiveness of the two (Zipfel et al., 2002), what has been identified is that both are highly effective for severe cases of EDs.

2.4.2. Pharmacological Treatments

At present, there is limited evidence supporting the use of medication as a treatment of EDs. A number of placebo-controlled trials found no evidence in favour of antidepressants in the improvement of eating disordered symptoms, weight gain, or enhancement of general psychopathology (Claudino et al., 2006).

For AN, the psychotropic medications such as the SSRI's (Selective Reuptake Serotonin Inhibitors) are the ones predominantly used, according to APA guidelines. However, the guideline states that this class of medication is commonly used for the prevention and treatment of comorbid disorders such as depression or/and obsessive-compulsive disorder. There is limited evidence with regards to SSRI's treatment effectiveness, which show inadequate efficacy with weight gain. According to research, AN patients benefit

more from psychotherapy, whereas medications are considered an adjustment treatment for comorbidities (Gorla & Mathews, 2005, APA, 2018).

BN has more evidence to support the successful use of medications. A number of studies have addressed the efficacy of numerous medications such as fluoxetine, tricyclic antidepressants, anticonvulsant topiramate, and ondansetron - all significantly reducing binge eating and vomiting in patients.

Pharmacological treatment in BED has also been found to be effective and includes SSRIs, antiepileptics, and appetite suppressants. Guidelines state that from the above-mentioned medications, topiramate is the most promising (Gorla & Mathews, 2005, APA, 2018). Taking into consideration the limitations of the above-mentioned pharmacological agents, the APA guidelines (APA, 2018) recommend the combination of pharmacology and psychotherapy, which can help individuals overcome ED pathology. Focus is placed in the family system, which is recognised to be a key element in a proper and effective intervention.

2.4.3. Outpatient Psychological Treatment

Due to the limited benefits of available pharmacological treatments alongside with the limited sample and applicable medical treatments for EDs, empirical direct observation of individuals was made in order to discover what works better for these patients (Treasure, 2005; APA, 2018). That is the reason why a lot of attention has been given to the history of psychotherapy in the treatment of EDs. A number of studies examine the effectiveness of different psychotherapeutic treatment in this disorder. Despite the small number of studies focusing on the search for the most effective treatment therapy, a few research beneficial therapeutic models/approaches have been identified.

2.4.3.1. Cognitive-Behavioural Therapy

Cognitive-behavioural therapy (CBT) attempts to change the way a person thinks and behaves, through identifying what preserves and strengthens the maladaptive behaviours, as well as engaging the person in new practical techniques and healthy behaviours (Pike, Carter, & Olmsted, 2005; Fairburn, Marcus,

& Wilson, 1993). Particularly, CBT may be very beneficial for patients who have a motivation to change. Treatment requires 20-40 sessions over a year or longer (if necessary, according to the type and severity of EDs) in order to help the person gain a sufficient and healthy amount of weight (Pike, Carter, & Olmsted, 2005) and/or regulate the self-perpetuating cycle of dieting (Fairburn, Marcus, & Wilson, 1993). CBT therapy is comprised of three treatment stages: (1) creating a strong therapeutic relationship with the patient, (2) targeting dysfunctional beliefs with regards to weight and food, and (3) preparing the patient for the end of treatment taking into consideration the possibility of any relapse (Garner, Vitousek, & Pike, 1997).

In Stage 1, the patient is introduced to the treatment and emphasis is given to the creation of a therapeutic relationship that aims to be strong and sincere. In this stage, the patient starts normalizing and engaging into a normal eating pattern and weight-control behaviours. Therefore, learning to control self by using distractive methods until the urge subsides is encouraged. In Stage 2, the patient starts to control the psychological matters involved (for example: interpersonal functioning, self-esteem, mood, perfectionism, etc.) by engaging in cognitive and behavioural strategies. Any dysfunctional cognition concerning weight, food, and shape are targeted. In Stage 3, relapse prevention is targeted, by identifying possible future incidences of relapse and constituting the patient able recognise from early on any warning signs (Garner, Vitousek, & Pike, 1997).

Results of the use of CBT indicate a significant weight regain and improvement in EDs and in general psychopathology, both in adolescent and adult populations (Grave, Pasqualoni & Calugi, 2008). A study by Eisler et al., (1997) suggests that a person who has either an early or a late onset, but a long background history, tends to have poorer outcomes than individuals with early onset and a short background history. To sum up, as Pike, Carter and Olmsted (2005) mention, CBT is very beneficial and effective concerning weight gain - though fails to adequately address the psychological matters involved in the disorder.

2.4.3.2. Psychodynamic Psychotherapy

Psychodynamic psychotherapy (PDP) has been used as a treatment for EDs for a long time, mainly in centres with theory and practice of psychotherapy as a main source of treatment (Sours, 1980; Johnson, 1991). Through psychoanalysis, the analysts' work is to resolve any hidden truths and conflicts, which may play a role in the occurrence of the disorder (Butcher, Mineka & Hooley, 2007). Numerous studies have tried to examine the effectiveness of PDP. Hamburg (1996) suggests that long-term use of psychoanalysis works for a number of patients with AN. However, Treasure et al. (1995) report a study of comparison between brief psychodynamic treatment and educational/behavioural therapy that found no significant differences in the treatment outcomes. Additionally, randomised-controlled trials compared the Minuchin style of family therapy to psychodynamic psychotherapy. Results showed that family therapy was significantly more effective in AN treatment than the psychodynamic approach. Nevertheless, as psychodynamic psychotherapy is not extensively studied for the treatment of EDs (Rhodes, 2003), it is difficult to have conclusive findings.

2.4.3.3. Systemic Family Therapy

While EDs early on pointed the picture of a dysfunction family due to the psychosomatic symptomatology of the child (Vandereycken, 1987), systemic family therapy (SFT) evolved its knowledge and practice in the investigation of this perspective. Many well-recognised family therapists like Minuchin, Selvini-Palazzoli and White have developed a rich theoretical and practical framework concerning EDs (Rhodes, 2003). While hospitalisation seems to have a short-term effectiveness on the recovery of EDs (Lock, Couturier & Agras, 2008), the need of a long-term recovery treatment requires the introduction of systemic therapy (Morgan & Russell, 1975).

Although, hospital care is a well-informed care plan for these incidents, it unfortunately neglects a very basic aspect – the important presence of the family (and in particular the parents) in EDs and merely gives emphasis to the medical treatment (Lock & Fitzpatrick, 2009). Moreover, a family therapy session accounts for greater reduction of healthcare expenses when compared to other therapeutic modalities in the

adolescent population (Crane et al., cited in Carr, 2006), lasts no more than twenty sessions. Again, findings consistent with the above indicate that individuals who receive SFT sessions have better outcomes compared to individuals receiving only individual treatment (CBT, Interpersonal therapy, etc) (NICE, 2004; Carr, 2009).

The presence of one or both parents is of utmost importance in the treatment interventions of an individual with EDs, as they may give insight to the condition and provide an explanation for the presence and causes of the adolescent symptomatology (Mitchell, 1980). Adolescents who present with an ED often try to avoid the problem instead of dealing with it, as there is an underlying dimension and dynamic that benefits from the presence of the symptomatology (Treasure, 2005).

In line with this study's perspective, a significant body of research examined the effectiveness of the SFT approach among the adolescent population. As EDs arise most commonly in late childhood and early adolescence (Lock & Fitzpatrick, 2009), Eisler et al., (2000) reported a large trial examining the separate versus conjoint family therapy sessions, which again revealed that the latter one has greater psychological impact on measuring the psychological functioning state of an individual with EDs. General improvements in weight regain, menstruation, and bulimic symptomatology were reported. Another study by Eisler (2005) on adolescent population showed that SFT helps individuals regain weight by the end of the treatment. In a follow-up (six months to six years follow-up), 60 to 90% of incidents fully recover - with less than 15% of individuals being classified as seriously ill. Moreover, Eisler et al. (2007) reported that when individuals with AN onset start SFT before the age of 18, they seem to respond better to SFT interventions (Eisler et al. 2007; cited in Roth & Fonagy, 2006). An additional study revealed that conjoint family therapy sessions (CFT; parents, siblings and ED child) compared to separate family therapy sessions (SFT; only the anorexic child) has a higher beneficial effect on change and improvement of eating and mood outcomes in adolescents (Dare et al., 2000).

The National Institute of Clinical Excellence (NICE) in the UK has recommended family therapy as a treatment guideline for EDs, reporting that family interventions should be offered to children and adolescents with EDs. However, it is also recommended that children and adolescents should be offered individual

therapeutic appointments in addition to family therapy (NICE, 2004). In addition, APA guidelines address the significance of parents' involvement in therapy, since parents have a key role in helping the child become a healthier individual (APA, 2018). These conclusions reinforce the study's perspective, recruiting parents in advance in order to prevent the presence of EDs. Before ED pathology occurs and the need to therapeutically intervene in the family, prevention with the help of parents can be the preferred choice for an adolescent who is more likely to suffer from EDs (Carr, 2009).

2.5. Eating Disorders Prevention / Early Intervention Programs

It is generally accepted that early identification of symptoms and prompt intervention are strongly associated with positive outcomes (Johnson et al., 2002; NIMH, 2017). In order to achieve this, proactive measures should be taken in routine screening of high-risk individuals. Even though it is very important in the development of EDs, early intervention remains a neglected area. An important goal of the intervention is to minimize the delay between the onset of the ED and the access to treatment (Bertolote & McGorry, 2005). Therefore, prevention and intervention aim to detect any pathological symptoms / behaviours, reduce the untreated illness, and promote appropriate knowledge (Chanen, Jackson, & McCutcheon, 2008).

First steps included the creation of prevention programs by providing psychoeducational material on EDs whilst aiming to involve all school children and adolescents, in order to inhibit the adverse effects of the disorder by changing the maladaptive behaviours. Second steps of prevention programs were to focus on didactic material derived from the socio - cultural components of the disorder, such as weight - control behaviours and thinness. Third steps were made on a specific population - on high-risk individuals, and intervention was conducted based on the risk factors (Stice & Shaw, 2004).

Numerous studies captured the idea of preventing the symptomatology of EDs by delivering school-based programs to children. Similar in context and structure, those programs aim to educate children about the nature, prognosis, and consequences of EDs, and also discussed about the dieting effects and weight loss concerns. Even if the programs significantly increase children's awareness about EDs, there seems to be a

lack of change in the target behaviour (Shisslak, Crago, & Neal, 1990; Rosen, 1989; Moriarty, Shore, & Maxim, 1990; Moreno & Thelen, 1993; Paxton, 1993; Killen et al., 1993). In another study conducted by Carter, Stewart, Dunn, and Fairburn (1996), schoolgirls were introduced to a prevention program, which focused on educational aspects of EDs, while integrating cognitive and behavioral procedures. This program showed significant changes in the target behaviour, though it was difficult to maintain those changes six months later.

Intervention applied has tried to change the problematic behaviour, each and every one of them having a different rationale, goal, and implementation. Therefore, the literature has tried to understand primarily the different factors involved in efficient intervention programs. As different intervention programs aim for different goals and have different structures, primary attention will be given to the important elements of a suitable intervention in the next section.

2.5.1. Psychoeducation

Psychoeducation has been shown to be amongst the most effective evidence - based prevention / early interventions in both community and clinical trials settings. As a professional treatment modality that synthesizes educational and psychotherapeutic components, psychoeducation can involve structured interventions on pathology, dissatisfaction and / or illness. To prepare participants to take part, psychoeducation is enriched with a complex, but at the same time digestive approach that enables persons to develop new knowledge, techniques, and a proactive / better function in their lives (Lukens & McFarlane, 2004).

Individuals with EDs and their cares are generally misinformed about what the normal weight is and what a correct diet includes, engaging in behaviours that are vague and misleading (Vitousek & Watson, 1998). Valid information is importantly beneficial to be delivered to parents and adolescents with EDs. Psychoeducation seminars have the potential to educate individuals on such information. For example, seminars on EDs may include the following important information: (1) psychological and physical parameters

of EDs with regards to purging, bingeing, restrictive eating, and low weight, (2) balanced diet, correct determinants of energy, and appetite expenditure, (3) genetic influences on fat distribution, metabolism and body weight, (4) mythology and physiology of exercise, (5) distress tolerance, coping strategies, and conflict resolution, (6) implementation of strengths, and (7) interpersonal relationships.

Over the last decades studies have shown that psychoeducation has positive effects in increasing quality of life and decreasing anxiety levels. The intervention gained a respectful ground reinforcing enhanced coping and emotional support for any form of severe illness (Lukens & McFarlane, 2004). For example, there have been various interventions developed throughout the years with a goal to reduce distress in carers with a family member having a mental illness (Cleary, Freeman, Hunt, & Walter, 2006; Coon, Thompson, Steffen, Sorocco & Gallagher-Thompson, 2003; Reinares et al., 2004) especially in the fields of depression (Reinares et al., 2004), schizophrenia (Pearce, McGovern, & Barrowclough, 2006), dementia (Coon, Thompson, Steffen, Sorocco, & Gallagher- Thompson, 2003) or psychosis (Szmukler, Kuipers, Joyce, Harris, Leese, Maphosa, & Staples, 2003). These types of interventions have focused in providing information on problem-solving skills. However, literature also showed an uncertainty with regards to which components of such interventions are likely to be necessary and sufficient (Vieta, 2005).

Over the past two decades, research on prevention / intervention programs for adolescents with EDs have also shown promising results (Yager & O'Dea, 2008; Stice, Rohde, Gau, & Shaw, 2012; Golden, Schneider, & Wood, 2016). The most promising therapies that seem to have strong evidence for effectiveness include Enhanced Cognitive - Behavioural Therapy (CBT – E), Family Based Therapy (FBT), Interpersonal Psychotherapy (IPT); all working differently for different people, and some may be more helpful than others. For instance, numerous CBT techniques and treatment manuals for CBT-E emphasize role-playing, problem - solving strategies, as well as other characteristics (such as mood intolerance, low self-esteem, perfectionism, interpersonal difficulties) aiming to reduce ED symptoms, alongside with a didactic material provided in a safe environment (McFarlane, 2002; Fairburn, 2008). Narrative models are focused on allowing participants to recount their stories in relation to the situation they experience, recognizing and empowering strengths and

resources (White, 1989, Lukens & McFarlane, 2004; NEDA, 2018). Although reports of randomized trials of different forms of psychoeducational therapy interventions for patients with EDs are well represented in the literature (Shaw, Stice, & Becker, 2009; Stice, Becker, &, Yokum, 2013; Ciao, Loth, & Newmark-Sztainer, 2014), adaptations for parents dealing with their child's illness have gained greater ground for further developments (Graber & Brooks-Gunn, 1996).

"The child supplies the power but the parents have to do the steering."

Parents are the key people for early intervention with regards to the first signs of EDs. The picture often presented in dysfunctional families is the following: parents are overwhelmed by the complexity of their emotions, as high levels of anxiety, guilt, hopelessness, fear, and anger drain them. As a result, they have regularly described their experience as a "living nightmare", as they are trying to hold on and keep family's normality. Parents also blame themselves for not acting sooner or even blaming professionals for not offering proper help (Cottee-Lane, Pistrang, & Bryant-Waugh, 2004). On a daily basis, there are challenges for parents such as convincing the child to eat properly and sufficiently or sometimes preparing separate meals for them or shop particular meals and many more. All of these circumstances take over the family as a system, and it cannot function properly. Therefore, this effect destroys the correct organization of the system; the symptomatology is presented as the "unwanted guest" and inevitably leads to distorted relationships and intense emotional atmosphere (Cottee-Lane, Pistrang, & Bryant-Waugh, 2004).

The need for prevention / early intervention in parents having a child with EDs have been a major opportunity for further involvement. Expanding the knowledge of parents has been an essential establishment for guidance and support, and a great empowerment, touching upon various aetiologies of EDs risk factors through the years (Dixon Adams, & Lucksted, 2000; McFarlane et al., 1995; McFarlane et al., 2003; Winn et al., 2004). However, this is a very small body of research and little research has been designed in order to suit parents' needs (Hart, Cornell, Damiano, & Paxton, 2015).

Since 1980, Maudsley Hospital in the UK has started developing a family - based treatment manual for adolescents with AN. The intervention can be offered in various formats such as to the whole family (conjoint), to parents only (parental counselling), or to multiple families together (Eisler, 2000). Maudsley family - based treatment views parents as having a central role in the child's life by taking responsibility and control. The main goal is to empower parents to take correct action in their parenting role by trying to externalize the problem (Eisler, 2000). Another program is the Surrey Early Intervention for EDs (Nicholls & Yi, 2012). The program is delivered in parent group format and consists of six sessions of 1 ½ hours each. The program is delivered immediately after the child is presented in the ED services. A main goal is to develop new skills and knowledge to parents, increase awareness and confidence to manage their child's eating habits.

A systematic review by Hart, Cornell, Damiano, & Paxton (2015) looked at the literature on different preventions for EDs involving parents. They found that throughout the years of 1992 to 2013, a range of studies have designed prevention / early intervention programs to reduce signs and symptoms of EDs, body dissatisfaction, and other risk factors for EDs focusing mostly on parents. Reviewing the results of the studies aiming to respond to parents needs, they revealed greater results compared to the programs that were delivered in school settings for children only.

In examining the relatively small number of studies on parent interventions with a child facing disordered eating behaviours or ED diagnosis, numerous results are in favor of a structured program intervention to parents delivered from a specialized professional. A study by Russell-Mayhew, Arthur, & Ewashen (2007) addressed the great contribution of a multilevel intervention. They emphasized a wellness-based strategy, suggesting a worthwhile framework to prevent EDs. The methods and results of their study brought a "health - promoting community capacity - building model", with a great need for future improvement. Winn et al. (2004) reported that carers identified the need for information on: (a) early signs of EDs, (b) treatments and (c) practical advices and guidance on how to deal with abnormal eating behaviours.

Therefore, an educational group training program for parents of adolescents with EDs is beneficial (Zucker, Ferriter, Best, & Brantley, 2005; Zucker, Marcus, & Bulik, 2006; Uehara, Kawashima, Goto, Tasaki, & Someya, 2001), showing that education and problem solving training delivered to parents reduces emotional over-involvement, improved self-care, and a reduction of family distress when dealing with the illness (Zucker, Marcus, & Bulik, 2013).

Moreover, an internet-based intervention program designed by Brown, Winzelberg, Abascal, & Taylor (2004) on adolescents with problematic eating behaviours and their parents resulted in significant reduction of eating restraint and an increase in knowledge. This suggests that it is a promising intervention that can effect positive change of parental attitudes after a short-term intervention. Also, a study by Geist, Heinmaa, Stephens, Davis, & Katzman (2000) compared psychoeducational group and family therapy and found that both interventions resulted in improved understanding of the illness, although it was noted that psychoeducation was more cost effective. A study by Goodlier (2014) showed similar results, where skill based training improved parent self-efficacy, anxiety, psychological distress, and burden. In addition, the intervention was a cost - effective method for supporting carers.

Furthermore, Sepulveda, Lopes, Todd, Whitaker and Treasure (2008) found that after a training skill workshop program, carers learnt new strategies and skills and were able to implement them in their future interactions. They also had an opportunity to meet, talk, learn, and share their thoughts with other carers in similar situation, which showed to be very helpful. Another study aiming to increase parent's understanding about EDs as a helpful framework in coping with their child's illness implemented five session seminars (90mins long) on parent - based psychoeducation (Holtkamp, Herpertz-Dahlmann, Vloet, & Hagenah, 2005). Indeed, observations found that mothers chose to self - manage their child's feeding difficulties, because they had no education and training from health visitors and also lacked educational resources available for parents (Mitchell, Farrow, & Haycraft, 2012).

Another program (2.5 hours long) gave education on (Fraser, Wallis, & St John, 2004) social learning principles with a goal to increase positive interactions and healthier parenting to parents with children between

the ages of 2 and 10 years. Pre- to post-intervention comparisons found a significant decrease in the overall problem eating scores and in the total parent problem scores. These results suggested that even a single-session intervention might be sufficient to bring positive changes in regards to problem eating behaviour. Other single session interventions showed to have similar changes in attitudes and practices (Eliassen, Miller, & Guskey, 2010).

The review of the literature indicated various prevention/early intervention studies focusing on education and parent's reinforcement in healthier practices resulted in a significant reduction in child's disordered eating and improvements in healthier parenting attitudes. If we conclude that eating pathology is mostly present among children and adolescents with a marked relapse and chronicity (Fairburn, Cooper, Doll, Norman, & O'Connor, 2000; Lewinsohn, Striegel-Moore, & Seeley, 2000), as well as this population encompassing a functional and emotional impairment as a result (Newman et al., 1996; Patton, Selzer, Coffey, Carlin, & Wolfe, 1999), the need for prevention / early intervention is needed at this stage. Studies report one-third (33.8%) of respondents with anorexia nervosa, 43.2% with bulimia nervosa, and 43.6% with binge eating disorder seeking treatment specifically for their condition (Fairburn, Cooper, Doll, Norman, & O'Connor, 2000; Johnson et al., 2002; National Institute of Mental Health, 2018), and as such, efforts should be made to develop intervention programs. Therefore, further research is needed, focusing in developing engaging programs taking into account the needs of parents. Furthermore, further research is required to contribute additional data on the forms and materials used in the interventions, alongside with intervention efficacy comparisons between patients and parents. The research is conducted in the context of the current Thesis is in accordance with these beliefs, and therefore attention has been given in the creation of a psychoeducation / early intervention program for parents.

2.5.2. Moderators of Intervention Effects

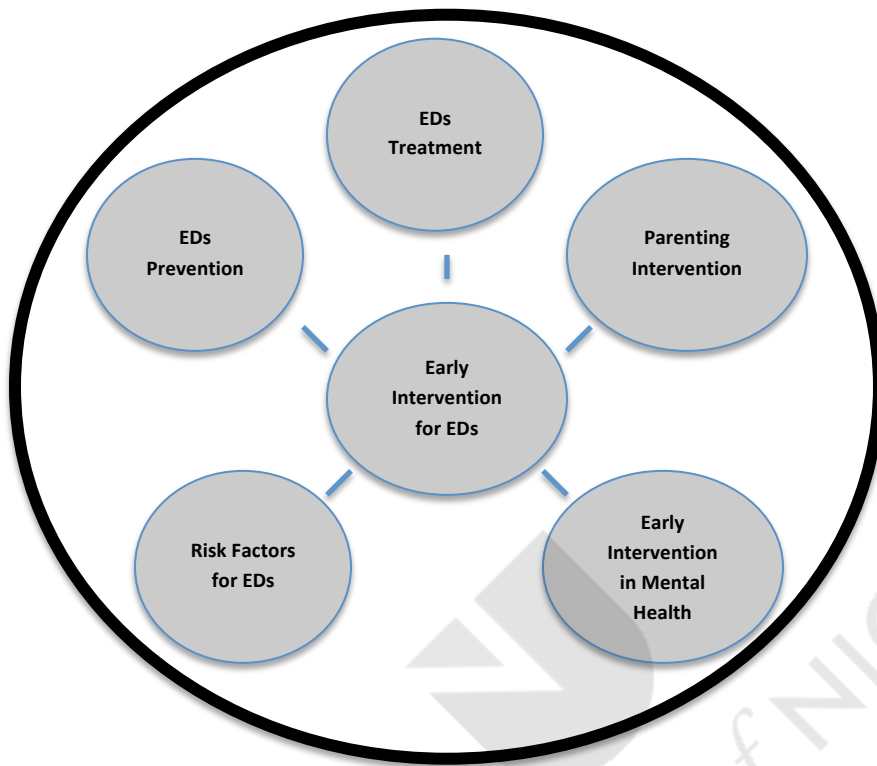
General Elements of Successful Intervention

Key elements of a successful ED intervention, include (a) community based support, (b) access to support and services across the continuum, (c) involvement of multidisciplinary teams in the on-going treatment, (d) age appropriate interventions, (e) involvement of natural support such as family members, peers, and (f) individual involvement in treatment identifying needs, preferences, and goals (Manitoba, 2006).

Therapeutic Relationship

Another key element for a successful intervention is the therapeutic relationship. Literature in this area supports that a positive therapeutic relationship may enhance the effective work (NICE, 2004; Vitousek & Watson, 1998; Clinton, 1996). Important components of a successful therapeutic relationship are: (a) collaboration between therapist and individual, (b) respect for individuality, (c) honesty, (d) patience and curiosity in the story of the individual, (e) emphasis on experimentation, (f) focus on functionality of beliefs, and (g) systemic and outcome focus orientation plan where insights experiences are applied in the individual's everyday life. Figure 2.1 summarizes the important contributors of a good model for early intervention as described by Nicholls and Yi (2012).

Figure 2.1. Theoretical contributors' model for early intervention in EDs (adapted from Nicholls and Yi, 2012).



Individual Risk Status

Another important element is the individual's risk status. In evaluations of the intervention programs, those delivered to high-risk individuals show to be more effective compared to control groups (Killen et al., 1993). Larger effect sizes signify the importance of implementing programs that target high-risk individuals, who appear to be more engaged more in the programs and tend to be more motivated, resulting in greater benefits (Stice, Mazotti, Weibel, & Agras, 2000).

Gender

Gender appears to affect intervention results. As girls and women have higher risk of engaging in maladaptive behaviours with regards to dieting (Newman et al., 1996), considerable attention has been given

to them compared to boys and men. Through the reported studies, girls and women tended to engage more in an ED prevention program, resulting in stronger intervention effects in female samples compared to males or mixed gender samples (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993). There are only occasional reports, which showed greater attention on male's behaviours specifically, paying more attention to their dieting behaviours and weight loss perceptions (Selvini-Palazolli, 1965; Herzog, Norman, Gordon, & PePOSE, 1984; Carlat, Camargo, & Herzog, 1997; Striegel-Moore, Garvin, Dohm, & Rosenheck, 1999).

Age

According to an evaluation of children and adolescents' emotional and developmental maturity, it is suggested that there is an inability for concrete awareness in ages less than 15 years old (Stice, Presnell, & Bearman, 2001). The explanation is that the child or adolescent younger than the age of 15 has not sufficiently experienced the distress of the pathology, therefore with a lack of insight and reasoning skills they cannot fully engage in the intervention program (Lewinsohn et al., 2000). Prospective studies suggest the ED pathology may arise between the ages of 15 to 19, with lower prevalence in early adolescence (Stice, Killen, Hayward, & Taylor, 1998). This suggests that prevention programs will be more beneficial for individuals over the age of 15 (Keel, Fulkerson, & Leon, 1997).

Program Format

It is suggested that interactive programs are more effective compared to didactic programs (Tobler et al., 2000). Interactive intervention programs increase participants' engagement to the program content. Interactive programs include exercises and role-plays that invite participants to learn and apply more new skills compared to didactic programs (Stice & Shaw, 2004).

Program Duration

There is some evidence that brief single sessions are not sufficient to promote lasting behavioural and attitudinal changes, as they cannot produce significant effects (Martz & Bazzini, 1999). Ideally, an intervention program should be delivered multiple times throughout the month (Stice & Shaw, 2004). A multisession intervention program enables the participant to learn and consequently change their behaviour at home and afterwards return and share their experience with the group for new pieces of advice. Thus, multisession intervention programs are more effective compared to brief single-sessions (Stice & Shaw, 2004).

Program Content

An important factor affecting a program's effectiveness is the content of the intervention. Programs that seek to prevent knowledgeable risk factors for eating pathology prove to be more effective compared to programs that are focusing on non-established risk factors (Stice et al., 2000). According to some researchers, programs that aim to be psychoeducational focusing on stress and coping skills have weak intervention effects (Larimer & Crounce, 2002). Programs that were focused on body dissatisfaction, thinness, self-esteem, environmental/causal factors, and healthy weight management produce larger intervention effects (Clarke, Hawkins, Murphy, & Sheeber, 1993).

2.5.3. Necessity for Early Intervention

There are many individuals involved in the lives of adolescents, such as parents, general practitioners, pediatricians, and school personnel such as school counsellors and gym teachers. This may give rise to multiple opportunities, where practitioners may have the ability to implement numerous formal and informal assessments or observations in order to detect the development of EDs in adolescents. There seems to be a delay in recognizing and treating EDs. An explanation is the fact that neither the individual who suffers nor the family members are confessing the problem, and children are detected far less compared to adolescents

(Bryant-Waugh, Lask, Shafran, & Fosson, 1992). Delay in treatment seems to occur at all ages (Nicholls, Lynn, & Viner, 2011). Parents are the ones who mostly seek help initially, but not immediately after weight loss because of the difficulty to differentiate normal from abnormal weight loss (Cottee-Lane, Pistrang, & Bryant-Waugh, 2004). There is delay until parents understand eating behaviour changes in their children and seek professional help (Thomson, McLaughlin, Marriott, Telford, & Sayal, 2010).

Parents are in children's immediate system and can detect early any eating behaviour changes or any changes in general behaviour. In addition, parents possess the largest amount of information related to the child. They are the first and most important line of treatment, as they can identify early on eating disorder pathology. In exploring an early ED intervention, effort should be made to implement potential strategies and education at early stages, in order to prevent the progression of EDs to a full syndrome diagnosis. In the last decade, early intervention has gained respect in the field. The aim is to minimize the gap between onset of symptoms and access to treatment, to prevent the development of the disorder (Bertolote & McGorry, 2005). Educators should integrate all skills and group structured mentioned in this chapter in order to create concrete and powerful parenting programs, achieving best outcomes.

2.5.4. Session Format / Structure

According to numerous studies (Nicholls & Magagna, 1997; Holtkamp, Herpertz-Dahlmann, Vloet, and Hagenah, 2005; Goddard, MacDonald, & Treasure, 2011), multimodal treatment methods have been offered to parents in a variety of settings and ways. In terms of delivery, parent-group programs seem to be more effective. In the work of Geist and colleagues (Geist, Heinmaa, Stephens, Davis, and Katzman, 2000), parent-group psychoeducation showed to be as effective as family therapy in both general and ED related outcomes. Two hours of family psychoeducation sessions reduced stressors of parents with children dealing with ED. In another study of Holtkamp and colleagues (Holtkamp, Herpertz-Dahlmann, Vloet, and Hagenah, 2005), five sessions of 1½ hours of psychoeducation decreased significantly emotions of distress and burden in caregivers. As well, it is suggested that 8-12 sessions lasting for a 1½ to 2 hours each may be optimal.

Parents' involvement in-group psychoeducation has started gaining credibility, as an alternative intervention with the benefit of shared experiences and emotions (Scholz & Asen, 2001). A parent group is very dynamic, as receiving the support from other parents dealing with the same problem can be very helpful for everyone (Zucker, Loeb, Patel, & Shafer, 2011). Nicholls & Magagna (1997, p.571) reported parents' feelings and behaviours.

'I somehow felt relieved when [the day of the group] came nearer. In the group you see that you are not alone going through the nightmare of tantrums and negation of life by your child. You can see and hear that one can survive, empower and change behaviour patterns and attitudes. [. . .] You can see what is suffocating for other children in their families and think more about what the problem is within your own family pattern. What I liked especially was the feeling conveyed by the leaders that the parents could manage to help their child out of the eating disorder. This hope was not destroyed'.

Scott (2010) identified some of the most important components of parenting programs: (1) structured topics, introduced in set order, (2) inclusion of play, incentives, setting limits, praise, and discipline, (3) promotion of sociable, self-contained child behaviour and calm parenting, (4) constant referral to parent's personal experiences, (5) theoretical basis with empirical research and examples, and (6) detailed manual for replication.

In terms of a good approach, there is a need for (a) collaborative approach between therapist/instructor and parents, as well as good collaboration between parents and children, (b) presence of humor and fun, (c) address the importance of parents practice of new approaches during the sessions, (d) normalization of difficulties, (e) regular supervision of parents upon new development of skills, and (f) availability for refreshments and transport (if necessary) (Scott, 2010).

It is important to mention the study of Geller et al. (2001), which found that motivation for change is an important factor in the treatment of EDs. Children or adolescents with EDs with no or little motivation to change seem to have significantly more problematic relationships with their parents (Zaitsoff and Taylor, 2009). Therefore, once again family support plays a crucial role in the treatment of the affected child, as

parents are the key people to offer emotional and physical support when needed. As Dr. Benjamin Spock said:

2.6. Summary

Despite the fact that the underlying causes of these physical and emotional damaging conditions are still unknown, studies suggest a combination of biological/genetic, social/cultural, and psychological (emotional, interpersonal, personality traits, thinking patterns) factors in the etiology and development of EDs. This means that some individuals are predisposed to EDs, and those symptoms can arise when environmental elements trigger them. Adolescents presenting a distorted pattern often do so because of their need to gain control over their lives, and/or because they may feel very stressed and overwhelmed with specific life events. Often, these adolescents have difficult relationships or may receive negative comments about their appearance, size and/or weight (Ogden, 2007). Consequently, they are solely preoccupied with food and weight as the only way to take control over their lives. Additionally, negative emotions are strong and extremely overwhelming for them, hence they try to control them using dieting, purging, or/and binge eating behaviours as a result. Ultimately, the behaviours damage the individual's physical and emotional health, disrupting their self-esteem, competence, and self-control. The need for early prognosis and treatment is crucial for the management and the improvement of health outcomes and the decrease rate of mortality.

The quality of families shows to play a significant role in the onset or/and maintenance of the illness (Cook-Darzens, Doyen, Falissard & Mouren, 2005). As Minuchin (1974) pointed out, a psychosomatic family is characterized as inflexible, with enmeshed boundaries, avoiding conflicts, and most of the times extremely overprotected. Therefore, it is of utmost importance to acknowledge the presence of one or both parents in the prevention of EDs in adolescents. Parents may give an insight explanation into causes or meanings of adolescents' symptomatology (Mitchell, 1980; APA, 2013). This suggests that the family context is important in the treatment of EDs, supporting a systemic orientation philosophy. The next chapter focuses on this philosophy and the role of the family in EDs.

CHAPTER 3

SYSTEMIC ORIENTATION PHILOSOPHY: ROLE OF FAMILY IN EATING DISORDERS

3.1. Systemic Orientation Philosophy

Previous literature reviewed suggested that EDs are not caused by an organic factor, but are presented because of psychological factors involving the whole family system (Mitchell, 1980; Darling, 1999; Haycraft & Blissett, 2010). Studies gave rise to the opportunity of paying attention into possible family dynamic factors that are associated to the presence and maintenance of EDs in the family life of adolescents. Models of group therapy evolved over time and are specialized into proper intervention of the disorder. Each of these group therapies are designed to meet specific needs/goals of individuals, assuming that the person is going to participate in group therapy if the group goals correspond to the individual's goals (Yalom & Leszcz, 2005).

EDs is a persistent and serious illness, which disrupts and influences the whole family system, by disrupting and changing its dynamics (McGoldrick, Gerson, & Petry, 2008). Any difficulties in communication with parents, any disabilities in the family connections develop and reinforce the dynamics that regulate relationships between them. For this reason, interactions with family members, especially between parents, are important to comprehend what is happening, when greater parental involvement and strictness are evident in younger adolescents with EDs.

According to the systemic approach, the family is considered and defined as a system. A complex of numerous elements that are dynamically and essentially linked together to a mutual interaction compromises it. Each family member is considered a system individually (keeps the same biological, psychological, and physical aspects), and also an interaction unit within the main system. Thus, each individual (subsystem) composes the whole family, which is more than just the simple sum of each member's involvement. Research into the area shows that any kind of interaction happening between individuals in the family system, will

affect individuals in various degrees. Studies (Couturier, Isserlin, & Lock, 2010, Lock & La Grande, 2000, 2001, 2005; Rienecke, 2017) showed that family-based treatments for adolescents is effective, and demonstrated significant results and improvement on adolescents' psychological symptoms, for example weight restoration, perceived fears and deficits.

One paradigm is group intervention with a systemic theoretical background on matters surrounding parents and family (an individual is defined as a separate system which interacts with other systems). Interventions acknowledge the essential influence of certain external, but simultaneously important factors that have a major impact in the structure and life of the family. Systemic theory is a widely used psychotherapeutic approach that integrates numerous techniques of other theoretical approaches. Group intervention with a systemic orientation has a great contribution to both theory and practice. Minuchin (1974; Rosman & Baker, 1978) worked with patients suffering with EDs and has emphasized that EDs has something to do with psychosomatic symptoms in families. Systemic group interventions respect the influence of family, and parents in particular in the occurrence of the disorder.

The main philosophy of systemic theory is the importance of an equal therapeutic relationship between therapist/instructor and parents. Systemic family therapists do not see themselves as the experts. They believe that having an expert stance will create problems. Adopting an expert stance will undermine the power and strengths of parents by reinforcing a dependency upon the therapist as a result. The therapist believes and trusts the processes that take place and that parents are able to evolve and change (Eisler, 2005; Dallos & Draper, 2005).

Systemic theory has the ability to understand EDs from multiple lenses and not only with the lens of a DSM's psychiatric disorder. A symptom may take place for a reason inside the family environment (the symptom as a red flag in a dysfunctional system) (Vandereycken, 1987). The initial picture presented by parents is the controversy between the child's desire to overcome the illness (where they want to recover) and the desire to remain in it (Joyce, 2008). Inside a group context therapy, it is vital to acknowledge this. Therefore, the basic intervention plan is to negotiate a contract with parents, shifting the attention from their

selves to the symptomatic cycle (patterns or distorted thoughts) that occurs or to the hypothesized reasons that maintain the existence of the disorder. Systemic theory puts an effort to address any unresolved conflicts or hidden truths in a person's life, by further supporting individual development and transformation (Eisler, 2005; Joyce, 2007; Joyce, 2008).

Therefore, the systemic theory does not focus only to the ill presentation of the child, but it investigates why the child is presenting the current symptomatology. Systemic therapists tend to search for problematic interactions between parent – adolescent relationships (Boscolo, Cecchin, Hoffman & Penn, 2007). Parents are not seen as the cause of the illness, but a resource of help and support for the adolescent in need (Eisler et al., 2005). Sours (1980) confirmed that a family with a child exhibiting disordered eating will present as a typical family that superficially seems to function well, but lacks the ability for conflict resolution, with overprotective and rigid parents.

As Minuchin (1974) pointed out, the psychosomatic family of a person with EDs is inflexible, enmeshed, avoids any conflicts, and is overprotective. These characteristics combined may emphasize the symptom appearance by suppressing the person's self-regulation, autonomy or/and emotional expressions. What a skilled therapist does is to accomplish parents' direct participation in the sessions, thus influence conversations on family dynamics and behaviors in a way that catalyzes parent's strengths, wisdom, and support. This is challenging and encouraging any behavioural and transactional change of parents (Lock & Gowers, 2005).

For example, a possible underlining hypothesis presented in group sessions is the inability of parents to cope, when the time comes for their child to look for a mate, a job or/and leave home. As a result, the stability and coherence of the system is threatened, by (a) placing the child into a parental conflict (Dallos & Draper, 2005), and (b) making the adolescent feel confused and threatened by the thought of choosing between their desire(s) and their parents. Another scenario suggests that, if the adolescent suffering from anorexia sees that their parents are not communicating properly and this might consequently result in a divorce (a life-threatening problem for the family, and the child per se), then the child tries to keep the family together by presenting the

symptoms (Eisler, 2005). Consequently, the symptoms gain a mediating role in saving parent's marriage. Many adolescents are willing to sacrifice their personal needs in order to keep their family safe and undamaged (Joyce, 2007).

In a way, the symptom has a central role reorganizing the family around the problem. As a consequence, every day-to-day decision is getting difficult to obtain, where the disruption of life's continuity is a basic element (Eisler, 2005).

Putting theory into practice, an example would be the following: a child receives less caring from parents, with presence of enmeshed boundaries within the family and less control on their behaviour. This child might interpret parents' behaviour as the former's incapability to be loved. Hence, the child will also feel impotent, leading to (a) possible disordered eating via emotional or cognitive avoidance and reluctance, and (b) the creation of a pathological schema (Cooper, Todd, & Wells, 1998). This schema absorbs ground from the child's life, as it is taking power over the days when it is repeatedly activated (Heatherton & Baumeister, 1991). The child creates an early negative experience within the family system, developing unhealthy core beliefs, maintaining and associating disordered eating through compensatory mechanisms in their life. Among these factors, since child-parent relationship is extremely meaningful in the explanation of eating pathology characteristics, this will be transmitted afterwards from generation to generation.

The presence of the pathology in the family system most of the times causes a general disruption and confusion in the psychology of other family members by experiencing changes in the way the family is organized. These changes may include various experiences of new, complicated emotions and responsibilities. The way the family system, and more specifically the family members react to these new challenges exert direct stimulus on the development of the pathology and the wellbeing of the "identified" patient (Leonidas & Santos, 2015).

At this point, systemic examples are very useful to group members, because they see how other parents overcame the illness by displaying strategies or alternative thought patterns they can utilise. The goal of systemic therapists' is to make group members see the adaptive mechanisms that others use in order to change

the maladaptive ones (Lock & Fitzpatrick, 2009). Listening to new ways of handling the problem and by being creative and flexible is helpful. This information makes group members believe in themselves and leave from sessions with a determination in their capability to discover their unique solution (Eisler, 2005).

As parents play a significant role in the child's emotional, psychological, and social development prior to the introduction of peer relationships, the quality of parent-child relationship is very essential for the understanding of a healthy family environment (National Institute of Child Health and Human Development Eating Disorders 20 [NICHD] Early Child Care Research Network, 2004).

Biological factors cannot fully explain the presentation of EDs (Wade, Bulik, Neale, & Kendler, 2000). The essential grasp of knowledge on family dynamics has always concerned research in the field of EDs. There are numerous family factors, which influence and contribute to the greatest extent to the aetiology of EDs; with parents being protagonists in this relationship.

3.2. Family Dynamics

Parental Emotional Closeness (Bonding)

One factor, which plays an important role in the aetiology and presentation of EDs, is the parent-child relationship. Various theoretical viewpoints have tried to analyse parental bonding. From a psychoanalytic viewpoint, distorted mother-daughter relationship may affect the development of EDs. Bruch (1973) has emphasized mother's failure to provide sufficient outer response to the child's inner state, leading to confusion between child's biological needs and emotional experiences. Bruch (1982) also described that the affected child may present conformity and obedience characteristics, therefore lacking independence during the individuation and separation phase. In the framework of self-psychology, any disorders of the self, similar to EDs, may be a result of a lifelong disturbance in the family environment. For instance, parents may be unable to maintain an empathic and encouraging environment towards their child (Geist, 1989; Goodsit, 1985; Sands, 1991).

Family therapists emphasized the role of a disturbed family system. Minuchin, Rosman, and Baker (1978) identified a psychosomatic family system, which is inflexible, enmeshed, with diffuse and weak individual boundaries, avoiding any conflicts and having an overprotected family structure. As Sours (1980) describes, a family with a child presenting with ED superficially works fine, however, members are enmeshed into a rigid, overprotective environment, lacking the ability for conflict resolution, and problematic communication styles (Humphrey, 1986, 1987).

In an effort to measure the parent-child bond, Parker, Tupling, and Brown (1979) developed the Parental Bonding Instrument (PBI), which assesses two dimensions: (a) care for the child and (b) control over the child. With the combination of these two components, assessment can be done in the scale of whether the parental bonding is (a) optimal, (b) weak, (c) affectionate constraint, and (d) affectionless control. Several studies designed to assess family and psychodynamic theories used this questionnaire (Calam, Waller, Slade, & Newton, 1990; De Panfilis, Rabbaglio, Rossi, Zita, & Maggini, 2003).

Studies conducted in this area suggest an association between parental bonding and development of eating problems; the child perceives parents to be overprotecting, especially the paternal figure (Haudek, Rorty, and Henker (1999), and report significantly lower levels of parental care and high levels of control (Stuart, Laraia, Ballenger, & Lydiard, 1990; Swanson et al., 2010). Individuals with EDs tend to rate parents as being more controlling and less caring.

Parenting Styles

Parenting style is defined as a complex activity that includes certain behaviours that work individually but combined may influence outcomes in the child's life (Baumrind, 1991). Research shows that (a) mothers presented with eating disorder behaviours implement great control in the child's feeding interactions in both clinical (Stein, Woolley, Cooper, & Fairburn, 1994) and non-clinical populations (Tiggemann & Lowes, 2002), (b) mothers seem to be more intrusive and verbally controlling their child's mealtimes (Stein et al., 2001), and (c) there is an association between eating psychopathology and serious parenting difficulties

(Woodside & Shekter-Wolfson, 1990). Children's attitudes towards dietary behaviours, body satisfaction, weight changes and physical activity are greatly influenced by parenting and food-related parenting style (Ventura & Birch, 2008).

Explanations of these behaviours have been divided into two important elements; demandingness and responsiveness. Demandingness is defined as the extent to which parents foster individuality, self-assertion, and self-regulation by being emotionally healthy, and supportive to children's needs and demands. Responsiveness is defined as the statements parents make on children in order to become integrated into the family system, by showing maturity demands, disciplinary efforts, and supervision in order to confront the child who disobeys (Baumrind, 1991). These two important elements have an extremely important role in the guidance, cohesiveness, communication, and emotional closeness of the family system.

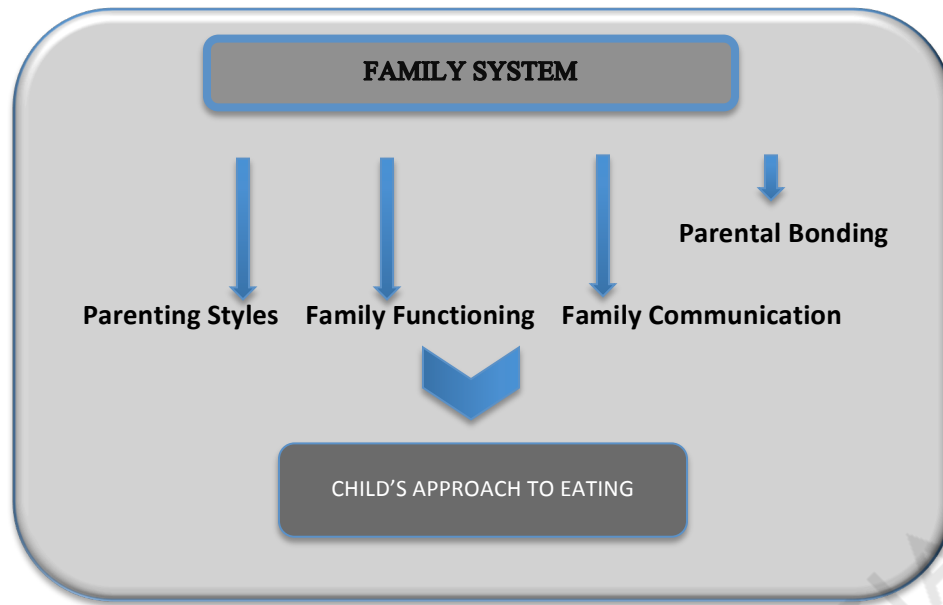
Baumrind (1991), alongside with the help of Maccoby and Martin (Darling, 1999), developed three different parenting parameters. These are the authoritative, authoritarian, and permissive styles, with Maccoby and Martin (1983) later adding a fourth parenting style, the neglectful. These gave rise to several studies, which tried to capture the association between parenting styles and disordered eating. Authoritative parenting style imposes clear guidance on aspects such as autonomy, warmth, and emotional responsiveness (ideal parenting style). The authoritarian parenting style imposes great control and demand, often being emotionally unresponsive. The permissive parenting style imposes neglectfulness such as lack of any attention, great indulgence and little control. For example, authoritarian parents tend to be less responsive and more demanding, permissive parents are more responsive and less demanding, neglectful parents are less responsive and less demanding, whereas authoritative parents are both responsive and demanding towards the child's upbringing (Darling, 1999).

Studies suggest that an authoritative parenting style may help in optimal child's development, whereas authoritarian and permissive parenting styles have less optimal outcomes. A drive for thinness has been related to more permissive and authoritarian parenting styles (Haycraft & Blissett, 2010). There is evidence

that a child with ED may have a mother who is more withdrawn, more permissive, and present a neglectful parenting style (Haycraft & Blissett, 2010).

Previous research has suggested a relationship with the authoritarian style and high development of depression and self-judgment, and low self-esteem and confidence, which are four main symptoms of ED pathology in children (Enten & Golan, 2009; Darling, 1999). Low self-esteem has been directly associated with disordered eating in college students. On the other hand, according to Buri et al., (1988). There is a strong relationship between high levels of self-esteem and the presence of the authoritative parenting style among students. Authoritative parenting style is also positively associated with lower levels of ED pathology. In this study, 37% of the variance for self-esteem was explained by levels of authoritativeness and authoritarianism in parents (Buri et al., 1988). Turner, Rose and Cooper (2005) explain that the mentality of the authoritarian, permissive, and neglectful parenting styles support a schema of dependence/incompetence and defectiveness/shame to be mediators in the association between ED symptoms.

In conclusion, it seems that dysfunctional communication patterns affect to a great extend the overall functioning of the family. Children's attitudes towards food and evaluation of satiety are both influenced by the family environment (Birch & Fisher, 1998). Daughters who have been diagnosed with ED seem to have a family environment (Emanuelli et al., 2004) where there is less cohesiveness and support, with more conflict between family members (Agras, Hammer, & McNickolas, 1999) (see Figure 3.1).

Figure 3.1. Family dynamics influences on the child's eating.

Taking into consideration the above findings, research has addressed the important environmental /family factors that are involved in the development and maintenance of EDs early in life. Parenting styles, boundaries, parental bonding, and family cohesion and adaptability are all essential parameters that need to be assessed in the development of dysfunctional thinking regarding eating, weight, and shape; crucial factors of the distorted system within the family. This suggests that all the key elements of parenting styles, boundaries, and communications should be integrated in education programs for parents. As a result, this would serve the prevention of EDs in adolescents, and simultaneously improve the parent-child relationships in general.

Family Functioning (Cohesion and Adaptability)

The attachment determination of a human being is a central part of survival, similar to sexuality and hunger (Bowlby, 1973, 1988). Therefore, throughout the evolution of humans, the need of a child to feel attached to their parents is vital. When family environment and consequently bonding and care are flawed, the child may lose their sense of security, attachment, and warmth with parents. For example, attachment theorists (Ainsworth, Blehar, Walters, & Wally, 1978; Bowlby, 1973, 1988) explain the child's need of

caregiver's security, warmth, and care, which if not present, result in detachment or/and dependency; characteristics of numerous mental disorders. Not surprisingly, studies have shown the existence of a relationship between disordered eating in adolescents and insecurely attached individuals (Latzer, Hochdorf, Bachar, & Canetti, 2002). Specifically, emotional connection between family members proved to help significantly child's development (Ackard, Neumark-Sztainer, Story, & Perry, 2006; Lucia, & Breslau, 2006). Furthermore, a functional family climate will result in developing healthy eating behaviours. Beyond conferring the biological predispositions for body weight, parents are the main models, which provide the environmental context for the child's eating behaviour.

Findings from previous studies have addressed and examined the significant role of family functioning, including parent's involvement when investigating important parameters of adolescent's eating behaviours and habits. Findings from a systematic review (Viesel & Allan, 2014) performed upon 17 papers on family functioning and eating disorders indicated a relationship between EDs and dysfunctional family functioning, with adolescents' perception of their families to be more disorganized compared to the perception of one or both of their parents.

In a number of studies, it has been suggested that parental modelling and functioning configure the behaviour of a child, for instance by regulating the amount or type of food (Birch & Fisher, 1998; Fisher, Mitchell, Smiciklas-Wright, & Birch, 2002; Savage, Fisher, & Birch, 2007). Another study addressed the important association between poor family functioning and increased risk of overweight and obesity in children and adolescents. Family functioning had a major role in increasing child's and adolescent weight, where existence of poor control, increased levels of conflicts, and poor communication were present (Halliday, Palma, D Mellor, Green, & Renzaho, 2014). In addition, parents and teachers of adolescents who are overweight tend to report more behaviour problems, with adolescent girls reporting lower body-esteem compared to adolescent boys (Stradner, Bosch, Kaaps, & Seidell, 2000). Additionally, a study also revealed an association between problematic and rigid family functioning and psychopathological symptoms, mostly amongst female adolescents (Cerniglia, Cimino, Tafa, Marzilli, Ballarotto, & Bracaglia, 2017, Levine

& Smolak, 2013; Tafa & Baiocco, 2009; Amianto, Ercole, Marzola, Daga, & Fassino, 2015; Tafa, Cimino Ballarotto, Bracaglia, Bottone, & Cerniglia, 2016). Studies overall suggest that family functioning should be included when investigating weight-related aspects, eating behaviours, and adolescents' behaviours.

As early as the 1930's, the sociologist Angell (1936) mentioned the term cohesion, in explaining the importance of family members' interaction and integration. In an effort to measure family functioning and conceptualize family systems, Olso, Sprenkle and Russell (1979) helped this assessment by creating two dimensional constructs, called cohesion and adaptability, which were termed the Circumplex Model. The authors tried to examine cohesion and adaptability parameters in families and assessed this model to be essential in evaluating family functioning and parents' contribution in the family environment. The authors have tried to examined cohesion and adaptability parameters in families and have addressed this model to be essential in evaluating family functioning and parent's contribution in the family environment. Cohesion is defined as the emotional bond that exists amongst family members and includes disengaged, separated, connected or enmeshed types of family. Adaptability is defined as the ability of the family to change its power structure, relationships, and rules in order to correspond to developmental or situational needs and includes rigid, structured, flexible, and chaotic types of family.

3.3. Role of Family in Aetiology and Treatment

Theoretical Background

According to the Schema Theory (Young, 1990; Young, Klosko, and Weishaar, 2003), schemas are often considered to comprise unconditional beliefs about the self. When putting schemas into context, the experiences of positive or negative memories play a crucial role in childhood development. For example, most of the times, those schemas are characterized by a disability of self to change them easily, leading to inflexible developments, as those schemas are bound with high affect and resistance to change (Cooper, Todd, & Wells, 1998).

From a psychoanalytic point of view, an abnormal relationship between parent and child might be more likely to underlie the development of eating disorders in children and in dysfunctional family functioning (Geist, 1989). Bruch (1973) emphasized confusion between biological needs and emotional experience, as a result of the mother's inability to stimulate adequate responses (schemas) to the child's internal state. Bruch (1982) also suggested that adolescents with anorexia have conformity and obedience presentation, which are associated with absence or small encouragement of their independence, during the individuation/separation phase. Self-psychology framework states that disorders of the self, but mostly eating disorders, especially in late childhood – early adolescence may be the result of a chronic and continuous disturbance in the parents' ability to support and retain compassion and understanding towards their child (Geist, 1989; Goodsit, 1985; Sands, 1991, Shipton, 2004). Criticism about body type, appearance, weight, in addition to embarrassment, guilt, and loneliness bring dissociation from emotional connections (Zerbe, 2016).

The inclusion of parents in the prevention and treatment of EDs legitimately occurred in the United States, in 2006, with the introduction of the “Practice Guideline for the Treatment of Patients with Eating Disorders” (American Psychiatric Association, 2013); a manual enclosing important guidelines and practices to be followed in the treatment of patients with EDs. In the manual, the authors address the significance to invite the family into the intervention of EDs. During the same period, England introduced the “National Institute of Clinical Excellence” that specialized on manual in EDs treatment, emphasizing the need to include family members as care strategy (NICE, 2004).

The quality (structure) of families plays a significant role in the onset or/and maintenance of the illness (Cook-Darzens, Doyen, Falissard & Mouren, 2005). Interestingly, Bruch (1978) discussed these ideas stating that unfortunately all children or adolescents with EDs have failed to escape interdependence and move towards their identity creation achieving independence. Bruch presented examples of different case studies, where characteristics of passive mothering, parental emotional under-involvement, excessive closeness, and control were present. For example, in broad terms, the structure of the family is divided into four types: enmeshment, overprotectiveness, rigidity, and lack of conflict resolution. Enmeshment type

identifies the inability of the family members to work independently, but at the same time keeping family cohesiveness. Consequently, inter-dependence does not allow family members to differentiate and develop their own identity. Overprotectiveness type identifies the fault need for high levels of concern and control for the family members, which brings delays of autonomy and mastery development results. Rigidity type identifies the difficulty of the individual to invite change and flexibility. Last, lack of conflict resolution type identifies the resulting outcome of the above patterns putting the family in a disadvantaged position to voice their problems and concerns, leading to a constant denial and/or disagreement (Minuchin et al. 1975). Therefore, the child seems to mask any underlying dysfunctional family presentation and parents become weak and overwhelmed to recognize, understand, and intervene on this aspect.

Furthermore, an interesting parameter addressed in literature is the discrepancy between adolescent and parent's perception upon their parenting and family functioning. In a systemic review from Viesel and Allan (2014), they found that adolescents perceived their families to be more disorganized compared to the one or both of their parents. The results indicated a relationship between EDs and dysfunctional family functioning supporting as well previous studies performed on this topic. Parents rated family functioning, such as cohesion and open communication aspects as significantly healthier than their children did. Also, a gap between adolescents and parents' viewpoints in regards to the family environment may contribute to a psychosomatic family system which will maintain more likely EDs and negative course of treatment (Dancyger, Fornari, Scionti, Wisotsky, & Sunday, 2005).

3.4. Summary

Family networks have been documented and examined by numerous researches identifying the crucial role of parents in the need of support on prevention and treatment of diseases (Bullock, 2004). Working with parents is difficult, because of the unique dynamics of EDs; stubborn resistance to change, including distorted beliefs, and counter-dependence. Multiple studies (Janet, 1979; Inbody & Ellis, 1985; Yellowlees, 1988)

suggested the early intervention effectiveness when working with individuals with EDs. Despite these empirical findings, the current literature available is dated.

More recent research has focused on the use of parents-group intervention in the treatment of EDs. Results and therapeutic conditions are applied in parents, and reflect the beneficial effects that have upon changing distorted behaviours and problematic family dynamics (Inbody & Ellis, 1985), and upon any other psychological matters (Janet, 1979) in the field of EDs. Especially, when concentration was given on cognition and family functioning, changes on the perception of individuals on physical appearance, weight and body image, happiness, and satisfaction improved (Lazaros et al. 2010).

In conclusion, research evidence supported intervention programs for EDs with main recipients the parents (Roth & Fonagy, 2006). Results of studies on child and adult population (especially non-chronic patients with EDs) showed that parent's intervention is beneficial and effective in the treatment of mental health problems and relationship difficulties (McIntosh et al., 2005; Bulik et al., 2007), especially when perceptions of both adolescents and parents on parenting and family functioning have been assessed (Viesel & Allan, 2014).

CHAPTER 4

PRESENT STUDY

Although numerous studies have addressed some of the important family dynamic variables, these attempts are dated and are not fully developed. Research has been performed on major family dynamics separately, lacking systemic point of view and the understanding of the possible integration effect of those factors in the explanation of a dysfunctional family system, that may increase the likelihood of disordered eating development in adolescent population (Baumrind, 1991; Canetti, Kanyas, Lerer, Latzer, & Bachar, 2008; Enten & Golan, 2009; Fernandez-Aranda et al. 2007; Golan & Crow, 2004; Haycraft & Blissett, 2010; Hotzel, Brachel, Scholssmacger, & Vocks, 2013; Kluck 2008; Lucas, 2009; Surgenor & Maguire, 2013, Rienecke, 2017).

In addition to this, the increasing need for early intervention in families is dramatically rising for adolescent population. It is well established in the literature that parents play a key role, promoting to children the adoption of healthy-eating behaviours and helping them become well-adjusted individuals (Kluck, 2008, Rienecke, 2017).

The aim of this thesis was to examine the impact of co-current family dynamics (parenting and parental emotional closeness) and family functioning parameters in Cypriot adolescents with the risk of disordered eating. The current study took into consideration multiple family dynamics that play a role in the synthesis of the environment of a child's upbringing. It is also important to research this topic in the Cypriot population and what is special in the Cypriot culture. Research has addressed that a big percentage of Cypriot family members shows to engage in an enmeshed family type, where family members are traditionally very close to each other (Argyrides, 2013) and may result to a possible risk factor for disordered eating.

The study was conducted in two phases. In Phase I, the study investigated aspects of family functioning, assessing their impact and association with adolescents' disordered eating behaviour. Parents

and adolescents answered the same questionnaire booklet, containing assessment tools for family dynamics variables, in order to investigate possible differences between parent and adolescent perception upon parenting and family functioning. Two main categories of family dynamics have been included in the study: (a) different parenting styles (authoritarian, authoritative, and permissive), and parental bonding (emotional closeness/care and control), and (b) family functioning, such as family structure (adaptability, cohesion structures) and parent-adolescent communication (problematic or open communication). Any future changes in parenting (adolescent perception) are interpreted into linear changes with the child's understanding of the family system and knowledge about their disordered eating pattern; where parents are becoming the mediating variable for family change (Rienecke, 2017).

The main research questions examined in Phase I were:

- (1) Are there gender and/or age groups (14-16, 17-19) differences in disordered eating,
- (2) Do negative perceived events and/or specific life characteristics influence adolescents' eating behaviours?
- (3) What is the relationship between parenting styles (parental emotional closeness) and disordered eating?
- (4) What aspects of family functioning (e.g. family structures and communication styles) are involved in disordered eating behaviour?
- (5) Is there comorbidity between disordered eating and depression and anxiety?
- (6) Are there differences between adolescents' and parent's perception of parenting and family structure and, if so, how do they relate to disordered eating?

The study Phase I hypotheses are presented below:

- H1: There will be gender and age (14-16, 17-19 age groups) differences in disordered eating.
- H2: There will be an association between negative life background and eating behaviours.

- H3: There will be an association between authoritarian, and/or permissive parenting styles and disordered eating behaviour, irrespective of anxiety and depression scores.
- H4: Dysfunctional adaptability, enmeshed and/or rigid cohesion structures, and low scores in family communication within the family will predict higher eating disorder pathology.
- H5: There will be a positive association between depression, anxiety and disordered eating behaviours.
- H6: There will be a significant gap in perception of parenting and family functioning between parents and adolescents, increasing the risk for disordered eating.

In Phase II, the study implemented a psychoeducation/intervention program on parents whose children were at risk for disordered eating behaviours as identified through the EAT-26 (see Methodology for further details). Sessions conveyed important information about EDs and discussed ideal parenting and healthy parent-child interactions. An intervention program with a systemic parent-based approach was used, which sought to minimize risk factors and promote protective factors for healthy parenting, by including parents in the solution of EDs and enhancing the understanding of the onset of the disorder. Core belief was to approach early presentation of symptoms, targeting prevention. The need for prompt parent psychoeducation in an effort to intervene early in the life of adolescents is mostly influenced by the work of Nicholls & Yi (Surrey Early Intervention for EDs, 2012) and Lock & La Grange (Treatment Manual of AN: A Family Based Approach, 2013) who worked on this perspective. Both acknowledged and emphasized parents' important role in the treatment of EDs.

In Phase II, the main research question examined was whether improvement of parenting and family functioning can be achieved, through an intervention focusing on enhancing healthier and constructive parenting in the system with the goal of minimizing adolescent's control and preoccupation on eating.

The study Phase II hypotheses are presented below:

- H1: There will be significant differences between pre and post measurements in the experimental group, with post measurements exhibiting improved change in parenting and family functioning after psychoeducation.
- H2: There will be no significant differences between pre and post measurements in the control group, with post measurements exhibiting no change in parenting and family functioning after psychoeducation.



CHAPTER 5

METHODOLOGY

5.1. Phase I

Design

The study utilized a correlational design in order to examine disordered eating as a pattern of dysfunctional family functioning. Disordered eating behaviours were assessed using the Eating Attitudes Test 26 (EAT-26), containing the following eating behaviours: (a) dieting, (b) bulimia and food preoccupation, and (c) oral control. Family dynamics assessment included the following variables: (a) parenting styles (authoritarian, authoritative, and permissive), (b) bonding (care and overprotection), (c) family functioning (cohesion and adaptability), and (e) family communication (open and problematic).

Participants

In order to design the research study, sample size calculation was performed taking into consideration the study research questions. Power analysis was conducted using G* Power (Faul et al., 2013). Power analysis for an ANOVA with 4 groups was conducted to determine a sufficient sample size using an alpha of 0.05, a power ($1-\beta$) of .80, and a medium effect size ($f = .25$) input parameters. Based on the aforementioned assumptions, a total sample size of 179 was required.

A non-clinical sample of 329 Cypriot adolescents and young adults was recruited from governmental, private high schools, and from the University of Nicosia. Two participants were excluded from the analysis due to the presence of diagnosed ED and Diabetes. The final sample consisted of 163 males and 164 females ($N = 327$). The mean age of participants was 15.89 ($SD = 1.43$) with a range of 14-19 years old.

During data collection, a non-clinical sample of 93 Cypriot parents was also recruited. These were selected on the basis of adolescents' score on the EAT-26. The sample consisted of 26 males and 67 females. The mean age of participants was 45.30 ($SD = 5.43$) with a range of 33-60 years old.

Inclusion criteria for participants required being an adolescent child between the ages of 14 to 19 years old, receiving informed consent from their parents (if under 18 years old). Exclusion criteria for participants were current health related problems with food (such as diagnosed diabetes, eating disorders, food allergies, high blood pressure, and intolerances) and also having been currently diagnosed with depression and/or anxiety. The likelihood of ED pathology in this group was controlled by setting a cut-off score above 35, according to the EAT-26 (Garner & Garfinkel, 1979).

Procedure

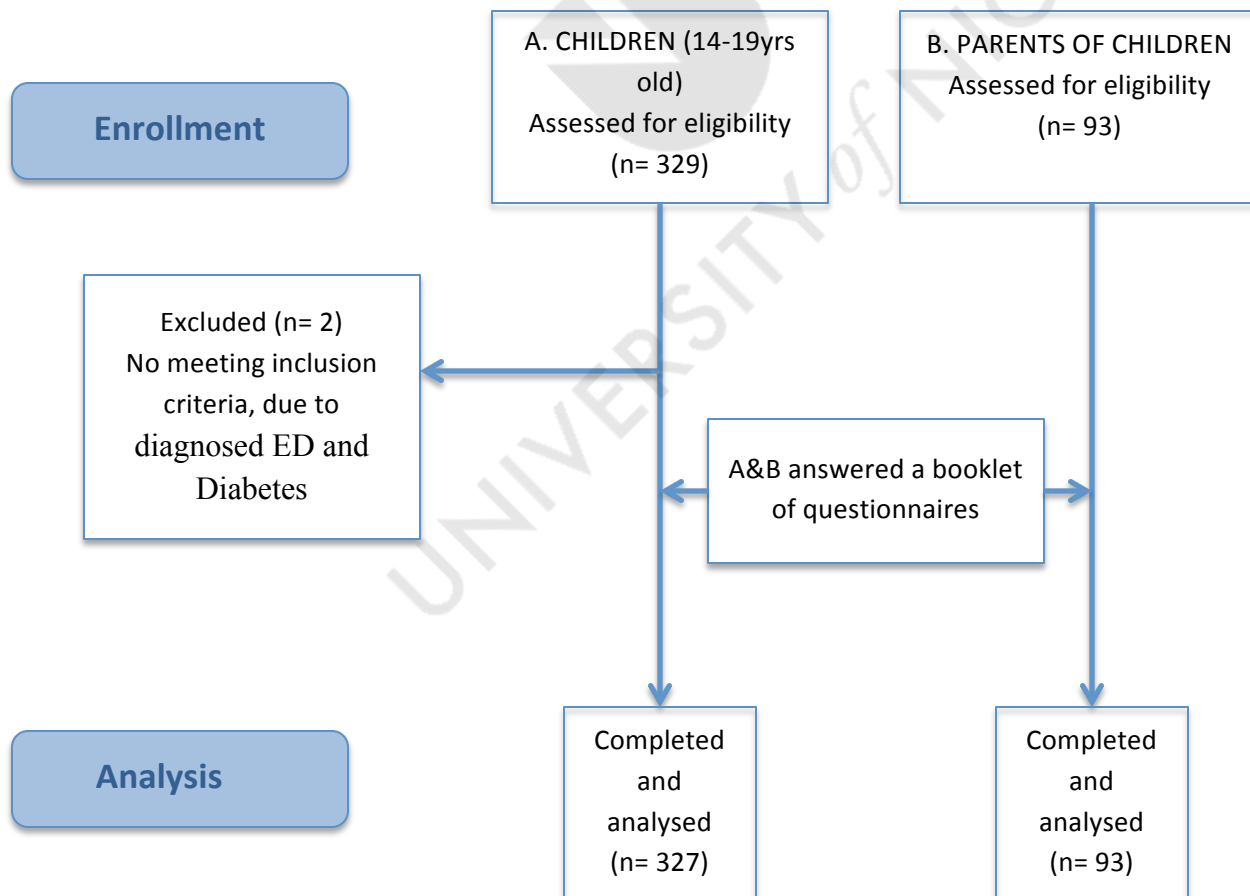
Ethics approval from the Cyprus National Bioethics Committee was obtained prior to the commencement of data collection. Permission was also obtained from the Ministry of Education and Culture for recruiting participants from public schools. Participants were recruited from classes in schools and university campus. Issues with regards to right to withdraw, confidentiality and anonymity were assured by providing informed consent forms to both parents and schools (see Appendices A, B). Only parents who had signed the informed consent form and their children participated in the study. Participants had the opportunity to write down their contact information in case they would like to be informed about the results of the study.

Questionnaires were administered to all adolescents and young adults. Participants did not initially receive full information about the study, in order to ensure no influence of the topic in their decision to participate. They were only informed that the study focused on their relationship with their parents. At first, participants were asked to collect a sealed envelope from the researcher, which contained a parent's consent form and a parent questionnaire completed by either the mother or the father. As long as children returned the consent form signed by parents back to the researcher, then they were eligible to answer their own questionnaire, which was sealed in blank envelopes upon completion. Parents' questionnaires were also collected in order to conduct parents' and adolescents' comparison of perceptions on parenting and family

functioning. Participants after completion of the questionnaire were asked to submit, if they agreed, their parent's name and contact details for the needs of Phase-II of the study.

The questionnaires were coded in numbers so that anonymity was secured, however, there was a separate dataset encoding each child's questionnaire with a parent name (to which only the researcher and supervisor had access to). This second step was important in order to detect and recruit those parents, who had a child rating high in the EAT-26. This result would signify the presence of an eating disorder risk based on child's attitudes, behaviours, and feelings related to food. Those parents were invited after completion of Phase I to participate in Phase-II (see Phase II for more details, page 67). The structure of Phase I design is presented in Figure 5.1.

Figure 5.1. Flow diagram of Phase I Design.



Measures

Participants completed a battery of questionnaires (see Appendices C - J). Questionnaires were first translated to Greek. In addition, a pilot study was conducted in order to evaluate questionnaires' clarity, feasibility, and duration. The first part of questionnaire was requested to elicit demographic information about the individual, such as gender, age, body weight and height (in order to calculate the body mass index - BMI), and also information about education, physical activity, lifestyle and physical-mental health. Moreover, additional information was collected about the presence of any negative events happening throughout the participant's life (see Appendix C). Additionally, the following questionnaires focusing on eating behaviours and family dynamics were administered.

1. EATING ATTITUDES TEST 26 (EAT-26):

The EAT-26 is a widely used standardized measure of symptoms and concerns assessing "eating disorder risk" in high school, college and other risk samples based on attitudes, behaviours, and feelings related to eating and eating disorder symptoms (Garner & Garfinkel, 1979; Garner, Olmsted, Bohr, & Garfinkel, 1982). It is a revised measure of the original EATS containing 40 items. As a screening tool, this questionnaire assesses three subscales: 1) Dieting, 2) Bulimia and Food Preoccupation, and 3) Oral Control. A total score above 20 indicates the need to seek professional help, whereas a score of 35 is evident of a need to seek intervention and treatment. Respondents are asked to rate on a scale from 1 to 6 (1=never, 6=always) the frequency of experiencing attitudes, behaviours, and feelings related to eating and eating disorder symptoms (see Appendix D). Cronbach's α has been reported between 0.56 to 0.80 (Gleaves, Pearson, Ambwani, & Morey, 2014). Cronbach's α for the whole scale in this study was 0.80. Cronbach's α was 0.79 for the Dieting subscale; with $\alpha = 0.67$ for the Bulimia subscale, and $\alpha = 0.52$ for the Oral Control subscale. Cut-off for presence of ED was set above 35, according to the EAT-26 guidelines (Garner & Garfinkel, 1979).

2. REYNOLDS ADOLESCENT DEPRESSION SCALE 2 (RADS-2):

The RADS-2 is a 30-item self-report questionnaire (Reynold, 1987) designed to evaluate five domains of the depression severity construct in adolescents: dysphoric mood, anhedonia/negative affect, negative self-evaluation and somatic complaints. Respondents are asked to rate on a scale from 0 to 3 (0=almost never, 3=always) describing emotions and behaviours related to depression (see Appendix I). Cronbach's α has been reported between 0.90 to 0.95 (Osman, Gutierrez, Bagge, Fang, & Emmerich, 2010). Cut-off for presence of severe depression is set to 76, according to the authors. Cronbach's α in this study was 0.91.

3. CHILD ANXIETY RELATED EMOTIONAL DISORDERS (SCARED):

The SCARED (Birmaher et al., 1999) is a widely used self-report questionnaire assessing anxiety disorder symptoms in children and adolescents from 8 to 18 years old. The questionnaire is composed of 41 items that can be allocated to five subscales: panic/somatic, generalized anxiety, separation anxiety, social phobia, and school phobia. Respondents are asked to rate on a scale from 0 to 2 (0=almost never, 2=most of the times) their general emotions and behaviours related to anxiety (see Appendix J). Cronbach's α has been reported between 0.87 to 0.91 (Birmaher, Brent, Chiappetta, Bridge, Monga, & Baugher et al., 1999). Cronbach's α in this study was 0.91.

4. PARENTAL BONDING INSTRUMENT II (PBI-II):

The PBI – II (Parker, Tupling, & Brown, 1979) asks adolescents to recall how their parents acted towards them during the first 16 years of their life. Participants are asked to rate their mothers' attitudes. The questionnaire consists of 25 items, with 12 items intended to measure the Care dimension, and 13 items intended to measure the Overprotection dimension. Respondents are asked to rate on a scale from 1 to 4 (1=very unlikely, 4=very likely) the frequency of experiencing care and overprotection from their parents. Several studies designed to assess family and psychodynamic theories used this questionnaire (Calam, Waller, Slade, & Newton, 1990) (see Appendix H). Cronbach's α has been reported as 0.93 (De Panfilis, Rabbaglio,

Rossi, Zita, & Maggini, 2003). Cronbach's α for the whole scale in this study was 0.51; with $\alpha = 0.86$ for the Care subscale and $\alpha = 0.70$ for the Overprotection subscale.

5. PARENTAL AUTHORITY QUESTIONNAIRE (PAQ):

The PAQ is a 30-item instrument developed by Buri (1991) to assess adolescents' perception of parenting styles (PAQ-R, parent report version). The questionnaire yields three parenting styles: authoritative, authoritarian, and permissive parenting styles. Scores for each parenting style range between 10 and 50 and respondents are asked to rate on a scale from 1 to 5 (1= strongly disagree, 5= strongly agree) their experience of parenting (see Appendix G). Cronbach's α has been reported between 0.65 to 0.95 (Buri, 1991; Elphinstone, Siwek, & Oleszkowicz, 2015). Cronbach's α for the whole scale in this study was 0.68; with $\alpha = 0.58$ for the Permissive subscale, $\alpha = 0.77$ for the Authoritarian subscale, and $\alpha = 0.77$ for the Authoritative subscale.

6. FAMILY ADAPTABILITY AND COHESION SCALE III (FACES-III):

The FACES-III was developed by Olson in 1983 to investigate family dynamics and has demonstrated the reliability and validity (Olson, Russell, & Sprenkle, 1983). FACES-III consists of 10 cohesion items and 10 adaptability items. The instrument asks the respondents to indicate how frequently the described behavior occurred in his or her family. The total scores of cohesion and adaptability respectively range from 10 points to 50 points. Respondents are asked to rate on a scale from 1 to 5 (1= almost never, 5= almost always) (see Appendix E). Cronbach's α has been reported between 0.68-0.72 for family adaptability and 0.81 to .90 for family cohesion (Lim, Lee, Oh, Kwak, & Yoon, 1990; Masselam, Marcus, & Stunkard, 1990). Cronbach's α for the whole scale in this study was 0.73; with $\alpha = 0.54$ for the Family Adaptability subscale and $\alpha = 0.71$ for the Family Cohesion subscale.

7. PARENT-ADOLESCENT COMMUNICATION SCALE (PACS):

The PACS (Olson, 1985) consists of 20 items measuring the quality of communication between adolescent and parent. The Open Family Communication (OFC) subscale reflects feelings of free expression and understanding in parent–adolescent interactions and the Problems in Family Communication (PFC) subscale measures negative interaction patterns and hesitancy to disclose concerns. Higher scores represent better parent–adolescent communication. Respondents are asked to rate on a scale from 0 to 4 (0 = strongly disagree, 4 = strongly agree) their feelings upon communication with parents (see Appendix F). Cronbach's α has been reported between 0.78 to 0.91 (Olson, 1985; Masselam, Marcus, & Stunkard, 1990). Cronbach's α for the whole scale in this study was 0.60; with $\alpha = 0.68$ for the Open Communication subscale and $\alpha = 0.84$ for the Problems in Communication subscale.

Translation of Measures

There was a need to translate the questionnaires in the Greek language as there were no available measures assessing family dynamics and disordered eating behaviours in Greek. After consideration of (a) numerous questionnaires measuring family dynamics, (b) the applicability and feasibility of measures being translated into Greek, and (c) the reliability and validity of the scales, the following questionnaires were chosen: Eating Attitude Test 26 (EAT-26), Reynolds Adolescents Depression Scale 2 (RADS - 2), Child Anxiety Related Emotional Disorders (SCARED), Parental Bonding Instrument II (PBI - II), Parental Authority Questionnaire (PAQ), Family Adaptability and Cohesion Scale III (FACES - III), and Parent – Adolescent Communication Scale (PACS). The approach used for the translation was back – translation (WHO, 2016). A four-step process was followed: (1) translation in Greek, (2) back translation in English, (3) pilot study and feedback from participants, and (4) final review (Forsyth, Kudela, Lawrence, Levin, & Willis, 2006).

1. Translation of questionnaires in Greek.

The translator was a bilingual literaturer in Greek and English language. The translation project aimed to develop items of the same meaning as the items included in the English questionnaires (Harkness et al., 2003). Based on these instructions, the translator worked independently and the researcher supervised the work, being available as needed to answer any questions and provide guidance. Any translation challenges were documented and then dealt with through discussion.

2. Back translation of questionnaires in English.

In order to check for discrepancies, back translation in English was performed. The translation was back translated (translate back from Greek into English) to ensure the accuracy of the translation. Any misunderstandings and / or unclear wordings revealed in the back translation (Guillemin, Bombardier, & Beaton, 1993) were dealt with through discussion. Afterwards, the instruments were tested on a small group of 5 bilingual participants, as close to the study population as possible. Item analysis and interviews with this focus group resulted in some minor amendments.

3. Pilot Study

Third step was the creation of a pilot study to pre-test the questionnaires before given to the target population of the study. The pilot study consisted of 18 participants, which were required to answer the Greek questionnaires and then comment on the questionnaires' items. The results were evaluated for reliability by the use of Cronbach's alpha (Beauford, Nagashima, & Wu, 2009). After the completion of the questionnaires, participants in the pilot study were asked to share their thoughts and suggestions for the translated items. This process helped the researcher record any misunderstandings and receive recommendations for the final step of the revision process.

4. Final Review

A meeting with the chair supervisor was conducted for the final revision of the questionnaires. This helped the researcher confirm that the translated items had the same meaning as the original items. This process was repeated several times before proceeding with the data collection in the target population. At this meeting, decisions the content of the questionnaires was finalised. The questionnaires were included in their full length in the present study and no exclusion of items was performed.

Handling of Missing Data

Missing value analysis was conducted in SPSS to establish whether data was missing at random or if there was a pattern, in order to ascertain how to deal with lost data. Evaluating the tabulated pattern table, the results of Little's MCAR test indicated that data is missing completely at random (MCAR) (Little's MCAR test p value $> .05$). Descriptive statistics were also conducted in order to evaluate the percentage of missing data in variables. The case-processing summary indicated that the number of cases for each variable ranged from 243 to 327 and with a range of 0 to 26 % of missing data. Therefore, a decision was made to handle missing data with pairwise deletion method (Peugh & Enders, 2004; Schlomer, Bauman, & Card, 2010).

Statistical Analysis

Data were analysed using the SPSS statistical package. The dependent variables were eating behaviours (subscales of EAT-26) (dieting, bulimia and oral preoccupation, oral control, and total disordered eating scale) and the independent variables were family dynamics variables (parental bonding, family communication, parenting styles, family adaptability and cohesion). In order to minimize Type I error resulting from multiple testing, where possible, omnibus tests (e.g. ANOVA) were conducted as opposed to multiple separate t -tests (Drummond & Vowler, 2012; Streiner, 2020). In order to examine hypothesis 1 and if there were gender and age (14-16, 17-19 group ages) differences on disordered eating, two-way ANOVA was conducted. To investigate Hypothesis 2, MANOVA analyses were conducted to examine any difference

between individual's background, negative perceived events and disordered eating behaviours. In order to investigate hypotheses 3 and 4, Pearson correlations and multiple regression analyses were used to assess relationships, holding constant depression and anxiety variables. In addition, hypothesis 5 was examined conducting correlation and regression analyses. Last, hypothesis 6 was investigated using paired sample *t*-tests, where adolescents' and parents' data were compared in order to investigate possible differences in their perceptions of parenting and family functioning on eating behaviours. BMI was calculated using the formula for each individual ($BMI = \text{Weight} / (\text{Height} \times \text{Height})$).

5.2. Phase II

Program Format

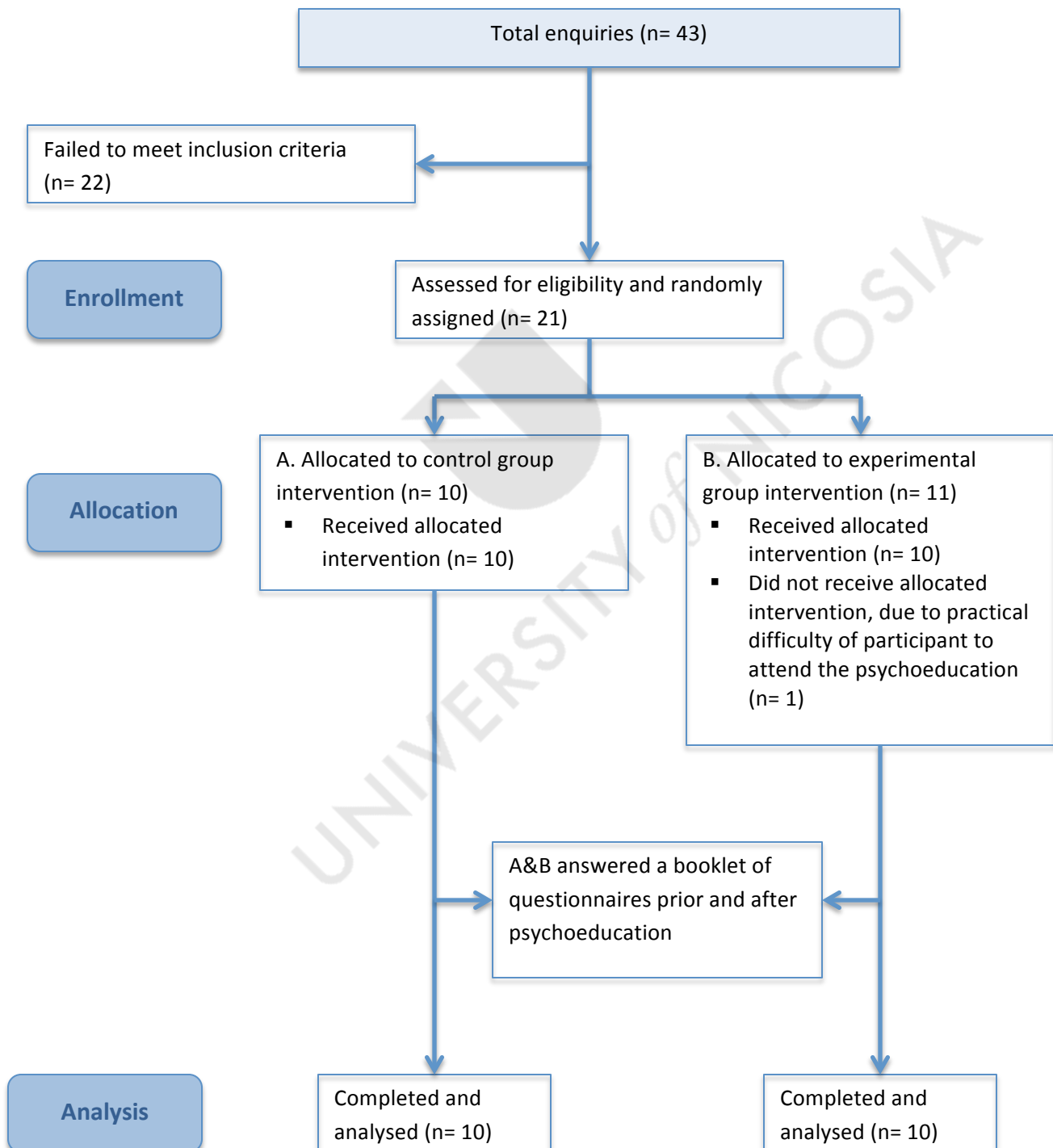
Phase-II consisted of an early prevention / intervention program designed for parents. Specifically, the program was delivered in a parents-only group format, focusing on specific family dynamic variables measured in this study. The need for early parent psychoeducation is mostly influenced by the work of Nicholls & Yi (2012) (Surrey Early Intervention for EDs) and Lock & La Grange (2013) (Treatment Manual of AN: A Family Based Approach, 2013), who both acknowledged and emphasized in their EDs therapeutic / management plans the need for parents' inclusion and their important enrollment in order to treat EDs. In an effort to intervene early in the life of adolescents, study goal was to examine an early prevention program, recruiting at first only parents, targeting to prevent prematurely unhealthy parenting and future disordered eating and/or EDs.

After completion of Phase I, parents were invited to participate in a series of five psychoeducational seminars with duration of 1-½ hours each, related to the research material. The seminars were designed to be delivered immediately after children's results in order to minimize the risk of future changes and future eating disorder pathology.

Parents with a child participant who rated high in the EAT-26 (cut off score was set > 20 of the EAT total score, according to the guidelines; Garner & Garfinkel, 1979) were invited to participate. Parents who

expressed interest to participate were assigned randomly to either an experimental or a control group. The structure of Phase II design is presented in Figure 5.2.

Figure 5.2. Flow diagram of Phase II design.



Participants in the experimental condition (n=11) received a series of five psychoeducational seminars focusing on the following variables: (a) EDs theories, medical background, classifications of EDs, current available services and treatment options, (b) aetiology, (c) parenting styles, (d) family functioning (cohesion and adaptability) and (e) communication patterns (open and problematic) within the family system. The purpose of the seminars was to promote a healthier family functioning. Specifically, the goals were (a) to learn the background and presentation of EDs (including aetiology), (b) to increase parents' knowledge and skills to manage their child's problematic eating behaviour, (c) learn how to have an open communication with their children within the family, (d) how to become an emotional mentor promoting the authoritative style and creating clear boundaries within the family context, and (e) promote essential cohesion and adaptability between family members, through practical exercises and interactive material. In addition, efforts were made to link the psychoeducational material presented to the family's own unique experience and role play was also used to demonstrate key concepts.

Participants in the control condition (n=10) received the same number and length of seminars with material focusing only on EDs background history and evolution. The aim of the intervention was to increase parents' awareness and understanding about EDs, psychoeducating parents (a) on theories, medical background, classifications, and aetiology of EDs, (b) current available services and (c) treatment options to the public. There was no education or discussion on family dynamics as in the experimental group.

The researcher (licensed clinical psychologist and systemic psychotherapist) administered the intervention programs for both the experimental and control group, having experience in working with individuals and groups on this topic. Participants were not paid for taking part in the study. Only parents who had signed the informed consent participated in the study. Issues in regards to confidentiality and anonymity within the groups were assured. The structure and the context of the sessions for each group are presented in Tables 5.1. and 5.2.

Table 5.1. Experimental group structure and context.

Psychoeducational Seminars	Context
Session 1	EDs historical background and diagnostic criteria, treatment options.
Session 2	Aetiology of EDs.
Session 3	Parenting styles
Session 4	Family functioning parameters.
Session 5	Communication patterns. Conclusion with interactive examples and activities.

Table 5.2. Control group structure and context.

Psychoeducational Seminars	Context
Session 1	Historical background of EDs.
Session 2	Diagnostic criteria of EDs.
Session 3	Aetiology of EDs.
Session 4	Therapeutic interventions for EDs.
Session 5	Current treatments in Cyprus. Conclusion of information about EDs.

Participants

A non-clinical sample of 21 Cypriot parents was recruited via personal invitation (according to the encoding from Phase I; see section Phase I - Procedure), and randomly allocated to one of the two groups. The experimental group consisted of 11 parents (father = 1, mothers = 10) with a mean age of 42.82 (SD = 4.85) and with a range of 36 - 51 years old. Of the 11 participants, 1 parent dropped out during the pre - post intervention period. The comparison (control) group consisted of 10 parents (fathers = 2 mothers = 8) with a mean age of 42.90 (SD = 5.80) and with a range of 36-55 years old.

Inclusion criteria for participants required being a parent of a recruited child fulfilling the criteria of a score > 20 on the EAT-26, and the ability to provide informed consent. Exclusion criteria for parents were to have health related problems with food (such as diabetes, eating disorders, food allergies, high blood pressure, food allergies and intolerances) and also to rate clinically high on the depression and anxiety scales. The

likelihood of eating pathology was controlled by setting an exclusion cut-off score above 35, according to the EAT-26 guideline (EAT-26; Garner & Garfinkel, 1979).

Measures

In order to assess the efficacy of the intervention program in terms of behaviour change, all parents answered four questionnaires pre and post-intervention. Demographics were collected (see Appendix K), as well as the EAT-26, the PAQ-R (caregiver version), the FACES III, and the PACS (caregiver version), were administered similarly to Phase I (see Appendices D, E, L, & M). These questionnaires measured (a) eating behaviours, (b) parenting styles, (c) family cohesion and adaptability, and (d) communication patterns (open or closed communication) of parents in their child's upbringing. The above-mentioned questionnaires were administered at both intake and post-intervention for both experimental and control groups.

At the end of the psychoeducational seminars, a questionnaire was also given, which used a 7-point Likert scale to collect parents' opinions on the effectiveness of the program delivered. Parents were asked to rate five important parameters regarding the session-based intervention and assess the quality of the seminars. The five parameters were: (a) opportunity to express personal experience, (b) distinct weekly topics, (c) clear and comprehensive material, (d) confidentiality and respectful approach, (e) meeting other parents, and (f) group discussion (see Appendix N). The questionnaire was developed based on literature suggesting that the above-mentioned factors are an important part of an effective intervention (Scott, 2010).

Handling of Missing Data

Missing value analysis was conducted in SPSS to establish whether data was missing at random or if there was a pattern, in order to ascertain how to deal with lost data. Evaluating the tabulated pattern table, the results of Little's MCAR test indicated that data is missing completely at random (MCAR) (Little's MCAR test p value $> .05$). Therefore, a decision was made to handle missing data with pairwise deletion method (Peugh & Enders, 2004; Schlomer, Bauman, & Card, 2010). Descriptive statistics were also conducted in

order to evaluate the percentage of missing data in variables. The case-processing summary indicated that the number of cases for each variable ranged from 19 to 21 and with a range of 16 to 24 % of missing data.

Statistical Analysis

The software package SPSS was used to analyze data. Pre and post-intervention data were collected and compared using two - way mixed ANOVA. To address directly how parenting styles had changed throughout the psychoeducational seminars, parents in both conditions were assessed for ED psychopathology and for overall parental functioning at intake and immediately post-intervention.



CHAPTER 6

RESULTS

6.1. Phase I

6.1.1. Demographic Characteristics of Participants

As a first step, descriptive statistics were used to examine all variables of interest in the study. Frequency analyses were performed in order to gain an understanding of the data set. From 327 participants, 21 were in lower secondary (gymnasium) education (6.4%), 264 were upper secondary (lyceum) education (80.7%), and 42 were university undergraduate students (12.8%). Calculating BMI, 53 participants were underweight (16.2%), 211 had normal body weight (64.5%), 31 were overweight (9.5%), and 7 were obese (2.1%). Furthermore, according to participants' responses, 50 participants reported difficulties in their interpersonal relationships (15.3%), 36 participants reported abuse of drugs and/or alcohol (11%), 34 participants had health problems (10.4%), 69 had sleep problems (21.1%), 41 had learning difficulties (12.5%), 28 were undergoing therapy (physical and/or psychological) (8.6%), and 235 were exercising (71.9%). Table 6.1 presents the descriptive statistics of the variables of interest (collection of family dynamics). From the dataset, 61 participants were falling in the disordered eating category (18.7%) (score of 20 and above in the EAT-26) which signifies the need for further investigations.

Table 6.1. Descriptive statistics of variables of interest.

	Mean	SD	Minimum Value	Maximum Value
Bulimia	1.41	2.40	0	16
Dieting	5.02	5.50	0	35
Oral Control	2.87	2.82	0	17
Cohesion	36.18	6.14	16	50
Adaptability	27.00	5.39	14	42
Open Communication	30.40	5.34	13	40
Problem in	36.94	4.52	26	50

Communication				
Care	27.77	6.62	4	36
Overprotection	12.69	5.37	1	36
Permissive Style	29.38	4.83	15	43
Authoritarian Style	27.82	6.23	12	47
Authoritative Style	35.29	5.77	16	50
Depression	57.74	13.50	33	107
Anxiety	22.63	12.48	0	67

Frequency analyses were performed to examine the different family structures reported by children.

Figure 6.1 and 6.2 show the number of children who reported each perceived cohesion and adaptability type (FACES-III) respectively. Cohesion family type is divided in four structures: (a) disengaged, (b) separated, (c) connected, and (d) enmeshed. Adaptability family type is divided into four structures: (a) rigid, (b) structured, (c) flexible, and (d) chaotic.

Figure 6.1. Cohesion Family Types Percentages in Data Collection

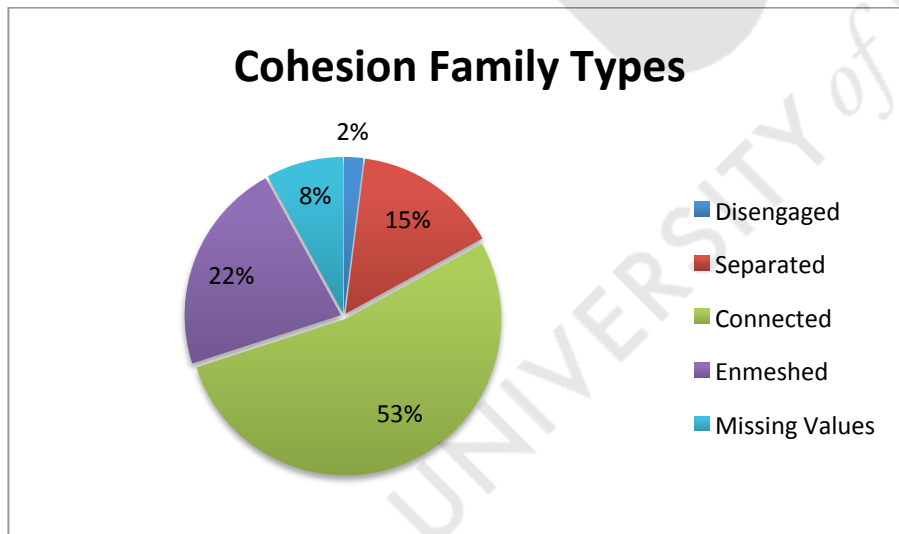
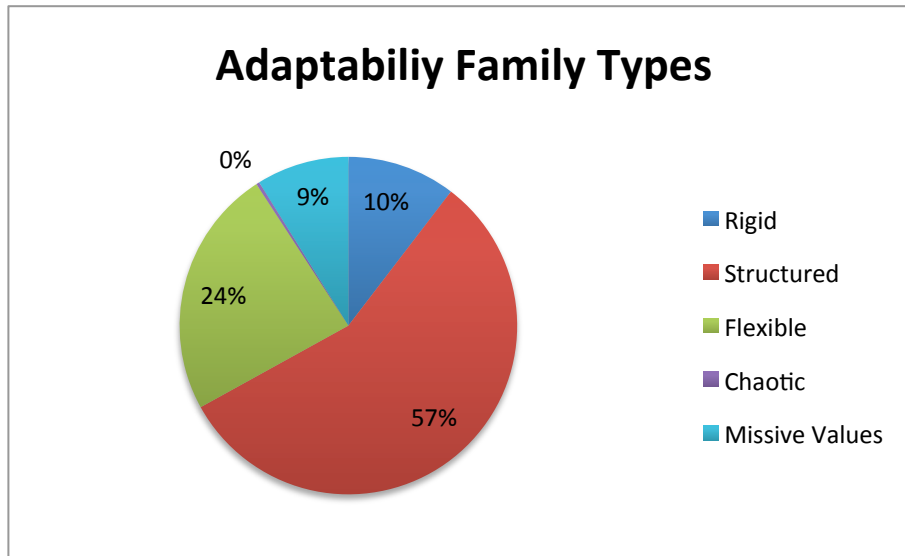


Figure 6.2. Adaptability Family Types Percentages in Data Collection

A one-way ANOVA analysis was performed to examine any differences between the children of the 93 parents who participated in the study compared to those who did not. Results revealed no significant differences in adolescents' characteristics between the two groups, in gender ($p = .16$), interpersonal difficulties ($p = .78$), health problems ($p = .15$), drug and / or alcohol abuse ($p = .32$), sleep problems ($p = .25$), learning difficulties ($p = .09$), exercise ($p = .93$), undergoing therapy ($p = .95$), BMI ($p = .55$), and body perception ($p = .62$). Results also revealed no significant differences between the two groups with regards to family dynamics variables in disordered eating behaviour ($p = .71$), dieting behaviour ($p = .21$), bulimia behaviour ($p = .51$), oral control behaviour ($p = .76$), cohesion ($p = .77$), adaptability ($p = .15$), problem in communication ($p = .83$), open communication ($p = .22$), permissive parenting style ($p = .12$), authoritarian parenting style ($p = .90$) or authoritative parenting style ($p = .46$).

6.1.2. The Influence of Individual Background on Eating

Two-way ANOVA analyses were performed to examine the impact of gender and age groups (14-16, 17-19 age ranges) on eating attitudes (Hypothesis 1). There was a statistically significant main effect for gender on dieting behaviour, with $F(3, 203) = 4.55$, $p = .03$ and small effect size (partial eta squared = .02).

Mean score for females ($M = 5.84$, $SD = 6.06$) is statistically different compared to males ($M = 4.19$, $SD = 4.74$). The interaction effect between gender and age groups was not statistically significant for any of the disordered eating behaviours.

MANOVA analysis was conducted to investigate differences in subgroups of the sample in the presence of disordered eating attitudes (Hypothesis 2). Dependent variables were the three subscales of EAT-26 (dieting, bulimia, and oral control), including total EAT score, and independent variables were all important individuals' characteristics of the participants, such as interpersonal relationships, alcohol and/or drug abuse, sleep problems, learning difficulties, exercise, health problems, and therapy intake. There was a statistically significant effect of therapy on disordered eating behaviour [$F(1,226) = 13.27$, $p < .01$, $\eta^2 = .055$], bulimic behaviours [$F(1,226) = 5.32$, $p = .02$, $\eta^2 = .023$], and on dieting behaviours, [$F(1,226) = 11.31$, $p < .01$, $\eta^2 = .048$]. Results suggested that when adolescents and young adults are under psychotherapy and / or pharmacological therapy were tended to present more disordered eating behaviour (with medium effect size), and mostly bulimic and dieting behaviours (small effect size). No additional differences were found for the rest of the individuals' characteristics, such as interpersonal relationships, alcohol and/or drug abuse, sleep problems, learning difficulties, exercise, and health problems.

Information was also collected addressing various events that could occur into a child's life. Children had the opportunity to report which life events took place that had a negative impact emotionally. Results illustrated that a 6% of children moved to another house, 6% moved to another school, 3% repeated the year in school, 10% experienced a family health problem, 11% lost a family member, 7% experienced a parent divorce, 4% experienced family changes (in specific parent's schedule changes), 3% had siblings moving into another house and/or country, and 2% had a new member in the family.

Further investigating these findings, and to explore any differences between those experiencing and those not experiencing these events in relation to disordered eating attitudes, MANOVA analysis was conducted. Dependent variables were the three subscales of EAT-26 (dieting, bulimia, and oral control) and the EAT total score and independent variables were the negative events in participants' life (see Appendix D).

Results indicated that the experience of death of a family member had a borderline statistically significant effect on disordered eating [$F(1, 280) = 3.79, p = .05$, partial $\eta^2 = .013$] and oral control behaviours [$F(1, 280) = 10.05, p = .002$, partial $\eta^2 = .035$]. Results suggested a small effect size for the experience of death of a family member on disordered eating and oral control behaviours respectively, with the likelihood of participants to engage more in these behaviours. No significant results were found for the rest of the negative events in participants' life (see Appendix D).

Finally, correlations were conducted in order to examine whether there is a relationship between the Body Mass Index (BMI) of the individual and EAT subscales (dieting, bulimia, and oral control) and the EAT total score. Results suggested a low significant positive correlation between disordered eating and BMI with $r(268) = .19, p = .002$, as well as bulimia and BMI with $r(289) = .22, p < .01$, where a higher BMI was associated with increased disordered eating and bulimia eating attitudes. Moreover, there was a low significant negative correlation between dieting and BMI with $r(285) = -.290, p < .01$, as well as oral control and BMI with $r(292) = -.18, p = .002$, where a lower BMI was associated with increased dieting and oral control.

6.1.3. Disordered Eating Attitudes and Family Dynamics Relationship

Correlation analyses were conducted to explore associations between EAT subscales and family dynamics (when depression and anxiety held constant), and assess whether to proceed with regression analysis. Hypotheses 3 and 4 predicted significant changes of eating in response to different family dynamics. In the presence of overprotection, less care, problematic parenting styles (such as authoritarian, permissive styles), difficult communication, and increased cohesion and adaptability within the family context, more disordered eating behaviours were hypothesised.

A significant positive correlation was found between disordered eating attitudes and family cohesion. A low significant positive correlation occurred for disordered eating attitudes and cohesion variable (cohesion subscale of FACE scale), [$r(270) = .17, p < .01$]. Another significant correlation was observed between

dieting and cohesion, indicating a positive relationship, [$r(283) = .16, p = .008$]. A low borderline significant positive relationship was observed between disordered eating and authoritarian parenting style, [$r(254) = .12, p = .05$]. There was also a low significant positive correlation between oral control and authoritarian parenting style (authoritarian parenting subscale of PAQ), [$r(275) = .12, p = .04$]. There was no significant association between family communication and adaptability variables with disordered eating ($p > .05$). Taking into consideration the above correlations, hypothesis 3 was verified. Hypothesis 4 was semi-verified, indicating no association between family communication adaptability with disordered eating. No other relations were observed between eating attitudes and other family dynamics variables.

6.1.4. Predictors of Disordered Eating Attitudes

Family Dynamics Predicting Disordered Eating Attitudes

To collectively investigate variables that could predict adolescents disordered eating behaviours, four hierarchical multiple linear regressions were conducted, each consisting of three blocks (Hypothesis 3 & 4). The dependent variable on the first regression was the disordered eating attitude scale (EAT-26 total score), the second one was the dieting subscale (of EAT-26), the third was the bulimia subscale (of EAT-26), and the fourth was the oral control subscale (of EAT-26) (note that higher values indicated higher levels of problematic eating attitudes). For the first analysis, in Block 1 potential confounding variables were included (gender, age, exercise, health problems, and therapy intake, and BMI) to assess their impact. In Block 2, variables related to dynamics in the family context were included (family cohesion, family adaptability, open and problematic communication, parenting styles, care and overprotection variables). In Block 3, pathological characteristics were added (depression and anxiety) to see if it added anything more than the preceding variables in the regression model. The same rationale for selecting predictors was repeated for the additional three hierarchical regressions.

The three regression models computed were all statistically significant. The first regression model (Block 1) consisted of potential confounding variables (gender, age, exercise, health problems, and therapy

intake, and BMI) and was statistically significant ($R^2 = .13$; $p < .01$), indicating an effect on disordered eating. The addition of Block 2 variables in model 2 did not reliably improve R^2 (R^2 increase = .05, p (F change) > .05). There was a small, but significant increase of R^2 after adding Block 3, depression and anxiety variables, in model 3 (R^2 increase = .04, p (F change) = .006). This final regression model (which consisted all three stages in the hierarchy) ($F(15, 201) = 3.84$, $p < .01$) with a medium effect size, as calculated by the multiple R of .47, $R^2 = .22$, and adjusted $R^2 = .16$, indicating that this model explained 16% of the variance in disordered eating behaviour. Table 6.2 summarizes the individual contributions of the predictor variables.

Table 6.2. Contribution of variables in the hierarchical regression on disordered eating attitudes (Block 3).

Predictors	Standardised beta coefficients	<i>t</i>	Sig.	Semi-partial correlation coefficient
Age	.124	.323	.747	.022
Gender	2.26	2.07	.040*	.138
Exercise	-2.45	-2.03	.044*	-.135
Therapy	-6.31	-3.14	.002*	-.217
Health Problems	-1.20	-.667	.506	-.045
BMI	.361	2.21	.028*	.148
Cohesion	.252	2.29	.023*	.190
Adaptability	-.042	-.390	.697	-.028
Open Communication	.046	.335	.738	.030
Problem in Communication	-.081	-.586	.558	-.045
Permissive	-.048	-.428	.669	-.029
Authoritarian	.143	1.595	.112	.109
Authoritative	-.013	-.124	.901	-.009
Depression	.054	.964	.336	.088
Anxiety	.101	1.818	.071	.154

* sig < .05

Overall, five variables made a statistically significant contribution to the third and final regression model. These were: “gender” (semi-partial $r = .14$), “exercise” (semi-partial $r = -.13$), “therapy” (semi-partial $r = -.22$), “BMI” (semi-partial $r = .15$), and “cohesion” (semi-partial $r = .19$). The semi-partial correlations indicated the correlation between each predictor and the dependent variable after controlling for

the effect of the other variables and suggested a positive correlation between gender, BMI, and cohesion with disordered eating attitudes. Females evidenced higher levels of disordered eating. Individuals who did not exercise or underwent therapy presented higher levels of disordered eating. Increased body weight (BMI) resulted in higher levels of disordered eating. Last, enmeshment evidenced higher levels of disordered eating. No other significant relationships were found under this regression model.

Predictors of Dieting Attitude

The three regression models computed were all statistically significant. The first regression model (Block 1) was statistically significant ($R^2 = .19$; $p < .01$), indicating an effect on dieting attitude. The addition of Block 2 variables in model 2 did not reliably improve R^2 (R^2 increase = .04, p (F change) $> .05$). There was a small, but significant increase of R^2 after adding Block 3, in model 3 (R^2 increase = .04, p (F change) = .002). This final regression model (which consisted all three stages in the hierarchy) ($F(15, 203) = 5.33$, $p < .01$) with a large effect size, as calculated by the multiple R of .53, $R^2 = .28$, and adjusted $R^2 = .23$, indicating that this model explained 23% of the variance in dieting behaviour. Table 6.3 summarizes the individual contributions of the predictor variables.

Table 6.3. Contribution of variables in hierarchical regression on dieting attitude (Block 3).

Predictors	Standardised beta coefficients	<i>t</i>	Sig.	Semi-partial correlation coefficient
Age	.045	.180	.857	.012
Gender	2.02	2.87	.005*	.184
Exercise	-2.50	-3.22	.002*	-.204
Therapy	-3.53	-2.73	.007*	-.181
Health Problems	.154	.133	.894	.009
BMI	.451	4.29	.000*	.274
Cohesion	.171	2.41	.017*	.191
Adaptability	-.044	-.638	.524	-.044
Open Communication	.042	.472	.637	.041
Problem in Communication	-.064	-.723	.471	-.053

Permissive	-.041	-.563	.574	-.036
Authoritarian	.062	1.07	.285	.070
Authoritative	-.061	-.875	.383	-.064
Depression	.048	1.33	.184	.117
Anxiety	.066	1.85	.065	.150

* sig < .05

Overall, five variables made a statistically significant contribution to the third and final regression model. These were: “gender” (semi-partial $r = .18$), “exercise” (semi-partial $r = -.20$), “therapy” (semi-partial $r = -.18$), “BMI” (semi-partial $r = .27$), and “cohesion” (semi-partial $r = .19$). The semi-partial correlations indicate the correlation between each predictor and the dependent variable after controlling for the effect of the other variables. Correlations suggested a positive correlation between gender, BMI, and cohesion with dieting, and a negative correlation between exercise, and therapy with dieting. Females evidenced higher levels of dieting eating behaviour. Individuals who did not exercise or underwent therapy presented higher levels of dieting eating behaviour. Higher body weight (BMI) resulted in higher levels of dieting eating behaviour. Finally, enmeshment evidenced higher levels of dieting eating behaviour. No other significant relationships were found under this regression model.

Predictors of Bulimia Attitude

The first and third regression models computed were statistically significant. The first regression model (Block 1) was statistically significant ($R^2 = .07$; $p = .007$), indicating an effect on bulimic attitude. The addition of variables in model 2 did not reach statistical significance ($R^2 = .09$, p (F change) $> .05$), indicating that these variables did not affect the presence of bulimia attitude. The addition of Block 3 had a small but significant increase of R^2 in model 3 (R^2 increase = $.03$, p (F change) = $.039$). This final regression model (which consisted all three stages in the hierarchy) ($F(15, 203) = 1.80$, $p = .036$) with a medium effect size, as calculated by the multiple R of $.34$, $R^2 = .12$, and adjusted $R^2 = .05$, indicating that this model explained 5% of

the variance in bulimic behaviour. Table 6.4 summarizes the individual contributions of the predictor variables.

Table 6.4. Contribution of variables in hierarchical regression on bulimic attitude (Block 3)

Predictors	Standardised beta coefficients	<i>t</i>	Sig.	Semi-partial correlation coefficient
Age	-.032	-.266	.790	.019
Gender	-.056	-.166	.869	-.012
Exercise	-.420	-1.11	.266	-.079
Therapy	-1.29	-2.06	.041*	-.151
Health Problems	-.394	-.702	.483	-.050
BMI	.138	2.71	.007*	.192
Cohesion	.015	.427	.670	.037
Adaptability	.014	.408	.684	.031
Open Communication	-.006	-.142	.887	-.014
Problem in Communication	.008	.190	.849	.015
Permissive	-.023	-.650	.516	-.046
Authoritarian	.018	.657	.512	.048
Authoritative	.008	.227	.821	.018
Depression	.008	.434	.665	.042
Anxiety	.030	1.72	.087	.155

*sig < .05

Overall, two variables made a statistically significant contribution to the third and final regression model. These were: “therapy” (semi-partial $r = -.151$), and “BMI” (semi-partial $r = .192$). The semi-partial correlations indicate the correlation between each predictor and the dependent variable after controlling for the effect of the other variables. There was a negative correlation between receiving therapy and bulimic attitude, and a positive correlation between BMI and bulimic attitude. Individuals who underwent therapy presented higher levels of bulimic eating behaviour. Higher body weight (BMI) resulted in higher levels of bulimic eating behaviour. No other significant relationships were found under this regression model.

Predictors of Oral Control Attitude

The three regression models computed were all statistically significant. The first regression model (Block 1) was statistically significant ($R^2 = .07$; $p = .008$), indicating an effect on oral control attitude. Block 2 variables in model 2 did not reliably improve R^2 ($R^2 = .12$, p (F change) $> .05$). The addition of Block 3 afterwards again did not reliably improve R^2 in model 3 (R^2 increase = $.12$, p (F change) $> .05$). Therefore, model 2 appeared to be the most suitable for predicting oral control attitude. This model ($F(13, 205) = 2.13$, $p = .014$) with a medium effect size, as calculated by the multiple R of $.34$, $R^2 = .12$, and adjusted $R^2 = .06$, indicating that the model explained 6% of the variance in oral control behaviour. Table 6.5 summarizes the individual contributions of the predictor variables.

Table 6.5. Contribution of variables in hierarchical regression on oral control attitude (Block 3)

Predictors	Standardised beta coefficients	<i>t</i>	Sig.	Semi-partial correlation coefficient
Age	.131	.930	.354	.066
Gender	.084	.214	.831	.015
Exercise	.312	.714	.476	.049
Therapy	-1.21	-1.69	.093	-.120
Health Problems	-1.14	-1.75	.082	-.123
BMI	.201	-3.37	.001*	-.236
Cohesion	.024	.609	.543	.052
Adaptability	.011	.290	.772	.022
Open Communication	.009	.183	.855	.017
Problem in Communication	.011	.212	.832	.017
Permissive	-.012	-.288	.774	-.020
Authoritarian	.077	2.37	.018*	.169
Authoritative	.048	1.21	.226	.097
Depression	.000	-.007	.994	-.001
Anxiety	.007	.319	.750	.029

* sig < .05

Overall, two variables made a statistically significant contribution to the second regression model, “BMI” (semi-partial $r = -.24$) and “authoritarian parenting style (semi-partial $r = .17$). The semi-partial

correlations indicated a negative correlation between adolescents BMI and oral control attitude, and a positive correlation between the presence of an authoritarian parenting style and oral control attitude. Increased body weight (BMI) predicted higher levels of oral control eating behaviour. Authoritarian parenting style also resulted in higher levels of oral control eating behaviour. No other significant relationships were found under this regression model.

6.1.5. Examining the Relationship Between Disordered Eating Attitudes with Depression and Anxiety

Multiple correlations were performed to examine any association between mental state and disordered eating (Hypothesis 5). Results showed significant relationships between dieting and bulimia with depression and anxiety scales. Table 6.6 shows all the significant relationships found between EAT subscales with depression, and Table 6.7 shows all the significant relationships found between EAT subscales and anxiety.

Table 6.6. Correlation analyses between EAT subscales and depression

	r	n	p-value
EAT total score	.21	234	.01*
Bulimia subscale	.19	233	.004*
Dieting subscale	.24	229	.01*

* sig < .05

Table 6.7. Correlation analyses between EAT subscales and anxiety

	r	n	p-value
EAT total score	.24	217	.01*
Bulimia subscale	.15	251	.016*
Dieting subscale	.24	246	.01*

*sig < .05

Low significant positive correlations were observed between depression, anxiety and disordered eating, specifically with bulimia and dieting behaviours. When individuals experienced depression and / or anxiety, they tended to present more bulimic and dieting eating behaviours. No significant associations were observed between oral control eating behavior and anxiety or depression. A multiple regression was performed to investigate whether anxiety and depression can predict eating behaviours. A significant regression model was found for depression on dieting, ($F(2,206) = 8.78, p < .01$), with a medium effect size, $R^2 = .08$, explaining 8% of the variance. Depression is a significant predictor of dieting (Beta = .102).

6.1.6. Comparisons of Adolescents Versus Parents Perceived Dynamics in the Family

Paired sample *t* –tests were conducted to explore whether there was a statistically significant difference between children and parents' data set for family dynamic experiences (Hypothesis 6). In specific, comparisons have been made between children and parents' perceptions on family dynamic variables: (a) cohesion, and adaptability patterns, (b) open or problematic communication, and (c) parenting styles (permissive, authoritarian, authoritative).

According to the following results, there was a statistically significant difference between children and parents' perceptions upon family dynamics. Parent mean value was significantly higher for cohesion, open communication, and authoritative variables, indicating a gap compared to the child's perception. Results can be seen in Table 6.8.

Table 6.8. Comparisons of children and parents' perception on family dynamics.

Cohesion Scale	Mean	Standard Deviation	T-value	df	P-value	Effect Size
Children	36.50	6.31	-2.71	75	.01*	.44
Parents	38.98	4.82				

Open Communication Scale	Mean	Standard Deviation	T-value	df	P-value	Effect Size
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Children	29.75	4.76	2.01	75	.05*	.32
Parents	31.24	4.49				

Authoritative Style	Mean	Standard Deviation	T-value	df	P-value	Effect Size
Children	35.35	4.81	-5.61	69	.01*	1.03
Parents	40.50	5.13				

* sig < .05

Findings suggested that parents were more likely to believe that they engage in cohesion within the family system (medium effect size), show more open communication with their children (small effect size), and engage in authoritative parenting style (large effect size) compared to what adolescents perceive. In contrast, findings suggested that adolescents were more likely to perceive less cohesion, open communication, and authoritative parenting style from parents. No significant results were observed for other family dynamics, such as adaptability, problem in communication variable, care and overprotection variables, and authoritarian and permissive parenting styles.

6.2. Phase II

6.2.1. Descriptive Statistics / Participants Characteristics in the Experimental Condition

Chi-square analyses were performed comparing experimental and control group on baseline characteristics. Results revealed no significant differences between the two groups on baseline characteristics, with Pearson Chi-Square p value for age .26, for gender .60, for BMI .23, for family status .31, for work situation .87, and for financial status .14.

Demographics characteristics of parents in the experimental group showed that 2 participants finished secondary education, 6 had completed an undergraduate course, and 3 in a postgraduate course. Additionally, 6 participants were married, 1 participant was in a relationship, 2 participants were in separation with spouse, and 2 participants were divorced. Furthermore, 10 participants had a full-time job and 1 participant a part-

time job. Two participants assessed their financial situation as low, 8 as moderate, and 1 as high. Table 6.9 presents the descriptive statistics of the variables of interest (collection of family dynamics).

Table 6.9. Descriptive statistics of variables of interest in the experimental condition.

	Mean	SD	Minimum Value	Maximum Value
Bulimia	1.70	1.56	0	5
Dieting	6.60	4.64	1	14
Oral Control	1.54	2.76	0	7
Disordered Eating	10.22	8.82	2	25
Adaptability	25.90	5.50	16	36
Cohesion	28.60	4.08	24	38
Problem in Communication	32.45	4.52	25	39
Open in Communication	33.40	3.40	28	39
Permissive Style	27.27	3.10	23	32
Authoritarian Style	39	3.84	32	43
Authoritative Style	29.36	3.29	22	32

6.2.2. Descriptive Statistics / Participants Characteristics in the Control Condition

Demographics of parents in the control group showed that 4 participants finished their education, 5 had completed an undergraduate course, and 1 a postgraduate course. Additionally, 6 participants were married, 1 participant was in a relationship, 1 participant was in separation with spouse, 1 participant was divorced, and 1 was widowed. Furthermore, 8 participants had a full-time job, 1 participant had a part-time job, 1 participant was unemployed. One participant assessed their financial situation as low, 6 as moderate, and 3 as high.

Results are shown in Table 6.10.

Table 6.10. Descriptive statistics of variables of interest in the control condition.

	Mean	SD	Minimum Value	Maximum Value
Bulimia	.30	.48	0	1
Dieting	1.30	1.56	0	5
Oral Control	0	0	0	0
Disordered Eating	1.60	1.57	0	5
Adaptability	25.20	2.29	22	29
Cohesion	24.88	3.51	21	31
Problem in Communication	31.50	2.36	27	34
Open in Communication	21.10	4.33	15	27
Permissive Style	31.60	3.43	24	35
Authoritarian Style	31.90	3.14	27	37
Authoritative Style	32.20	3.29	26	37

Evaluation of parents' perception upon the quality of seminars showed a 95% of parents reporting excellent flow on structure, professionalism, and constructive discussion of seminars. A 5% of parents addressed the need for additional seminars for further development (Appendix N).

6.2.3. Comparisons Between Pre and Post Measurements in the Experimental and Control Groups

The main goal of Phase II was the exploration of whether psychoeducation had a positive effect on parenting and family dynamics variables. Two groups were created: (a) the experimental group was exposed to a series of five seminars, teaching parents essential knowledge and therapeutical services of EDs, as well as skills and ways of healthy parenting and family functioning and (b) the control group was exposed to a series of five seminars, teaching parents only material on theoretical knowledge and therapeutical services of EDs. No information was given in effective parenting compared to the experimental group.

Prior and after completion of the psychoeducation in both groups, parents answered a booklet of questionnaires on the following variables: (a) disordered eating (including subscales on dieting, bulimia, and oral control and overall disordered eating – EAT-26), (b) parenting styles (such as permissive, authoritarian,

and authoritative styles – PAQ-R), (c) open and problematic communication (FACES-III), and (d) cohesion and adaptability variables (PACS).

Two - way mixed ANOVA (repeated measures) was conducted to assess the impact of the different psychoeducations (experimental and control groups) on parents' scores across two measurement times (pre-intervention and post-intervention) in order to explore the effect of the seminars in healthier and functional parenting and family dynamics (Hypothesis 1 & 2). Significant main effect of time and interactions were observed for several family dynamics after the psychoeducation.

Results indicated a significant main effect of time [$F(1,16) = 15.29, p = .001, \eta p^2 = .49$] on disordered eating scores, with pre measurements scores showing increased disordered eating behaviour ($M = 5.89$) compared to the post measurement scores ($M = 1.28$). In addition, there was a significant main effect of group [$F(1,16) = 7.64, p = .014, \eta p^2 = .32$] on disordered eating scores with experimental group scores showing decrease in disordered eating behaviour compared to control group. Last, there was a significant interaction between time and group [$F(1,16) = 15.88, p = .001, \eta p^2 = .50$]. Descriptive statistics showed that in pre measurements the experimental group showed more disordered eating scores ($M = 11.25, SD = 8.84$) compared to the control group ($M = 1.60, SD = 1.57$); in post measurements the control group showed the opposite (control $M = 1.70, SD = 1.49$; experimental $M = .75, SD = 1.39$).

There was a significant main effect of time [$F(1,17) = 23.78, p < .0001, \eta p^2 = .58$] on dieting scores, with pre measurements scores showing increased dieting behaviour ($M = 4.05$) compared to the post measurement scores ($M = .79$). In addition, there was a significant main effect of group [$F(1,17) = 9.31, p = .007, \eta p^2 = .35$] on dieting scores with both groups showing decreased dieting behaviour scores. Last, there was a significant interaction between time and group [$F(1,17) = 18.54, p < .0001, \eta p^2 = .52$]. Descriptive statistics showed that in pre measurements the experimental group showed more dieting scores ($M = 7.11, SD = 4.62$) compared to the control group ($M = 1.30, SD = 1.56$); in post measurements the control group showed the opposite (control $M = .90, SD = .87$; experimental $M = .66, SD = 1.32$).

There was a significant main effect of time [$F(1,17) = 13.75, p = .002, \eta p^2 = .45$] on bulimia scores, with pre measurements scores showing increased bulimia behaviour ($M = 1.05$) compared to the post measurement scores ($M = .16$). In addition, there was a significant main effect of group [$F(1,17) = 4.57, p = .047, \eta p^2 = .21$] on bulimia scores, with experimental group showing decreased bulimia scores compared to the control group that showed no change. Last, there was a significant interaction between time and group [$F(1,17) = 13.75, p = .002, \eta p^2 = .44$]. Descriptive statistics showed that in pre measurements the experimental group showed more bulimia scores ($M = 1.88, SD = 1.53$) compared to the control group ($M = .30, SD = .48$); in post measurements the control group showed the opposite (control $M = .30, SD = .67$; experimental $M = .00, SD = .00$).

There was a significant main effect of time [$F(1,18) = 4.71, p = .04, \eta p^2 = .20$] on oral control scores, with pre measurements scores showing increased oral control behaviour ($M = 1.20$) compared to the post measurement scores ($M = .25$). In addition, there was a significant main effect of group [$F(1,18) = 4.72, p = .044, \eta p^2 = .21$] on oral control scores, with experimental group showing decreased oral control scores compared to the control group that showed a small increase. Last, there was a significant interaction between time and group [$F(1,18) = 10.98, p = .004, \eta p^2 = .38$]. Descriptive statistics showed that in pre measurements the experimental group showed more oral control scores ($M = 2.50, SD = 2.67$) compared to the control group ($M = .00, SD = .00$); in post measurements the control group showed the opposite pattern (control $M = .50, SD = .70$; experimental $M = .00, SD = .00$).

There was a significant main effect of time [$F(1,17) = 44.65, p < .0001, \eta p^2 = .70$] on cohesion scores, with pre measurements scores showing less cohesion ($M = 26.84$) compared to the post measurement scores ($M = 34.89$). In addition, there was a significant main effect of group [$F(1,17) = 96.99, p < .0001, \eta p^2 = .85$] on cohesion scores, with the experimental group showing a big increase and with the control group also showing a small increase. Last, there was a significant interaction between time and group [$F(1,17) = 30.80, p < .0001, \eta p^2 = .64$]. Descriptive statistics showed that in pre and post measurements, groups showed similar pattern, with experimental group showing increased cohesion scores (experimental $M = 28.60, SD =$

4.08; control $M = 24.88$, $SD = 3.51$) compared to the control group (experimental $M = 43.00$, $SD = 2.74$; control $M = 25.88$, $SD = 3.55$).

There was a significant main effect of time [$F(1,18) = 24.59$, $p < .0001$, $\eta p^2 = .58$] on adaptability scores, with pre measurements scores showing less adaptability ($M = 25.60$) compared to the post measurement scores ($M = 32.55$). In addition, there was a significant main effect of group [$F(1,18) = 28.70$, $p < .0001$, $\eta p^2 = .61$] on adaptability scores, with the experimental group showing an increase compared to the control group that showed no change. Last, there was a significant interaction between time and group [$F(1,18) = 24.60$, $p < .0001$, $\eta p^2 = .57$]. Descriptive statistics showed that in pre and post measurements, groups showed similar pattern, with experimental group showing increased scores on adaptability (experimental $M = 26.00$, $SD = 5.79$; control $M = 25.20$, $SD = 2.29$) compared to the control group (experimental $M = 39.90$, $SD = 1.19$; control $M = 25.20$, $SD = 6.39$).

There was a significant main effect of time [$F(1,19) = 9.80$, $p = .006$, $\eta p^2 = .34$] on permissive parenting style score, with pre measurements scores showing more permissive parenting style ($M = 30.00$) compared to the post measurement scores ($M = 27.76$). No significant main effect was found of group [$F(1,19) = 1.87$, $p = .19$, $\eta p^2 = .90$] on permissive parenting style score. Last, there was no significant interaction between time and group [$F(1,19) = 1.93$, $p = .18$, $\eta p^2 = .09$].

There was a significant main effect of time [$F(1,17) = 76.56$, $p < .0001$, $\eta p^2 = .82$] on authoritarian parenting style score, with pre measurements scores showing more authoritarian parenting style ($M = 36.00$) compared to the post measurement scores ($M = 25.84$). There was no significant main effect of group [$F(1,17) = .46$, $p = .05$, $\eta p^2 = .23$] on authoritarian parenting style score. Last, there was a significant interaction between time and group [$F(1,17) = 63.16$, $p < .0001$, $\eta p^2 = .79$]. Descriptive statistics showed that in pre measurements the experimental group showed more authoritarian parenting style scores ($M = 39.70$, $SD = 3.23$) compared to the control group ($M = 31.88$, $SD = 3.33$); in post measurements the control group showed the opposite (control $M = 31.00$, $SD = 3.90$; experimental $M = 21.20$, $SD = 5.11$).

There was a significant main effect of time [$F(1,18) = 17.35, p = .001, \eta p^2 = .49$] on authoritative parenting style score, with pre measurements scores showing less authoritative parenting style ($M = 30.70$) compared to the post measurement scores ($M = 34.65$). In addition, there was a significant main effect of group [$F(1,18) = 13.39, p = .002, \eta p^2 = .43$] on authoritative parenting style score, with the experimental group showing an increase compared to the control group that showed a decrease in authoritative parenting style scores. Last, there was a significant interaction between time and group [$F(1,18) = 18.00, p < .0001, \eta p^2 = .76$]. Descriptive statistics showed that in pre measurements the experimental group showed less authoritative parenting style scores ($M = 29.20, SD = 3.42$) compared to the control group ($M = 32.20, SD = 3.29$); in post measurements the control group showed the opposite (control $M = 28.90, SD = 4.25$; experimental $M = 40.40, SD = 2.06$).

There was no significant main effect of time [$F(1,18) = 2.86, p = .11, \eta p^2 = .14$] on problem in communication score, with pre measurements scores ($M = 32.25$) and post measurements showing similar results overall ($M = 35.25$). In addition, there was no significant main effect of group [$F(1,18) = 15.91, p = .05, \eta p^2 = .47$] on problem in communication score. Last, there was a significant interaction between time and group [$F(1,18) = 8.29, p = .01, \eta p^2 = .31$]. Descriptive statistics showed that in pre measurements the experimental group showed increased problem in communication scores ($M = 33.00, SD = 4.37$) compared to the control group ($M = 31.50, SD = 2.36$); in post measurements similar results were obtained (experimental $M = 41.10, SD = 2.76$; control $M = 29.40, SD = 9.23$).

There was no significant main effect of time [$F(1,18) = .003, p = .95, \eta p^2 = .00$] on open communication score, with pre measurements scores ($M = 26.85$) and post measurements showing similar results overall ($M = 26.80$). There was a significant main effect of group [$F(1,18) = 76.25, p < .0001, \eta p^2 = .81$] on open communication score, with experimental group (pre $M_{\text{experimental}} = 32.60, SD = 4.22$, post $M_{\text{experimental}} = 33.40, SD = 3.40$) showing an increase compared to the control group (pre $M_{\text{control}} = 21.10, SD = 4.33$, post $M_{\text{control}} = 20.20, SD = 2.74$) that showed a decrease of open communication scores. Last, there was no significant interaction between time and group [$F(1,18) = .92, p = .35, \eta p^2 = .049$].

In summary, the results supported the belief that psychoeducation seminars focusing on family dynamics are more likely to facilitate healthier parenting and decreased disordered eating behaviours compared to a psychoeducation focusing only on knowledge and therapeutic approaches of EDs. Psychoeducation and guidance on important family parameters succeeded in (a) a reduction of parent's disordered eating behaviours, (b) promotion of an authoritative parenting style and authoritarian parenting was contained, (c) improvement of family functioning by enhancing healthier cohesion and adaptability structure, and (d) better open communication between family members. In contrast, findings from the control intervention showed (a) small negative changes in most eating disorders attitudes, (b) no change in adaptability patterns within the family, (c) small decrease in open communication, and (d) small decrease in authoritative and authoritarian parenting style.

CHAPTER 7

DISCUSSION

The literature review represented an effort to provide a systemic comprehensive and identify the need to further investigate the relationship between disordered eating and specific family dynamics for appropriate prevention / early intervention to be developed. To date, the majority of research has focused mainly on single point measures that have been used to estimate the effects of familial aspects in the development of disordered eating. A number of investigations have identified the relationship of how parents may contribute to the development of disordered eating or even the presence of eating disorder within the family (Hotzel, Brachel, Scholssmacger, & Vocks, 2013; Surgenor & Maguire, 2013). Some have concentrated in family factors that play a major role in the development of disordered eating (Fernandez-Aranda et al. 2007; Kluck 2008; Canetti, Kanyas, Lerer, Latzer, & Bachar, 2008; Lucas, 2009). Others have analyzed the impact of different parenting styles and behaviours in the child's life (Baumrind, 1991; Golan & Crow, 2004; Enten & Golan, 2009; Haycract & Blissett, 2010).

Although the theoretical and empirical literature supports the relationship between various parameters of family dynamics and disordered eating, these attempts are dated and they have not collectively assess their impact on a child's eating behaviour (Kluck, 2008; Topham et al., 2011), which might enroll in the likelihood of disordered eating development and predict future presence of eating disorders (EDs).

The present study aimed to test the hypotheses and took into consideration numerous mechanisms and parameters in order to investigate this framework in the Cypriot culture. The research had two main goals. The first goal in the study was to investigate a combination of multiple family dynamics and demonstrate what kind of parenting is more likely to be involved in the development of ED pathology in adolescents.

The second goal in the study was to investigate whether an early intervention / psychoeducational program designed especially for parents will be beneficial to prevent parents having high risk ED adolescents. The main purpose of the psychoeducation was to help parents understand their vital role in a child's

upbringing, gain an early reflection of their parenting style, and facilitate emotional closeness towards their children. The discussion below presents an overview of the findings organized by each research question thematic area.

7.1. Association Between Parenting and Disordered Eating

Parenting styles are important factors involved in the genesis of disordered eating symptoms. A significant association was observed between increased levels of disordered eating behaviour and authoritarian parenting style in adolescents. In the presence of a less adaptive parenting style, such as the authoritarian, adolescents were more likely to exhibit disordered eating behaviours. More specifically, an association was found between adolescents exhibiting high levels of oral control eating behaviour and the presence of authoritarian parenting style. This was not surprising, because restraining a child's individuality may result in negative emotional adjustment and high levels of emotional control; which both have been correlated with child's internalisation of problems in the past (Barber & Harmon, 2002) and EDs presence (Enten & Golan, 2009; Haycraft & Blissett, 2010). When parents tend to engage in an authoritarian parenting, children lose sense of dependency and power, as a result of parents' overprotectiveness, intrusiveness, and lack of emotional closeness. Sadly, children feel constrained, invalidated, and psychologically and emotionally vulnerable; evidences supporting the notion proposed by Barber, Olsen, and Shagle (1994), Greenberger, Chen, Tally, and Dong (2000), and Shek & Lee (2005).

Findings showed no significant association between the authoritative parenting style and ED symptoms, as it did not predict any of the subscales of EAT-26. Additional support for this notion may be found in few studies reporting that more adaptive parenting is not associated with symptoms of eating disorders (Leinonen, Solantaus, & Punamäki, 2003). Results are in accordance with the literature, suggesting that the authoritative parenting style is the most consistent protagonist of identity achievement, because it is the most successful one in helping adolescents to acquire self-esteem and confidence needed to face challenges and make changes in life (Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994; Argyrides &

Sivitanides, 2016). When parents with authoritative parenting promote rules and restrictions, set boundaries and manage a child's behavior, this has a positive effect, which happens, at the right level and in the right context (Galambos, Barker, & Almeida, 2003). This style provides the freedom and the independency to the child to understand the options he/she has. By changing problematic parenting behaviours, safety and safeguarded environment to adolescents is promoted.

Last, no association was found for permissive parenting style and disordered eating behaviours. The permissive parenting style scale had a low value of alpha in the study, possibly not allowing significant results. This result can be due to low number of questions and / or poor inter-relatedness between items in the scale.

7.2. Association Between Family Functioning and Disordered Eating

In the present study, findings were in line with the literature associating highly enmeshed family structure and disordered eating pathology, as enmeshed cohesion type of families predict higher levels of eating disorder pathology. As expected, highly enmeshed families were more likely to have diffused and permeable boundaries, resulting in a need of family members to entangle with one another. Therefore, when enmeshment occurs, it takes the form of either (a) a conditional support, costing individual's independence, or (b) dysfunctional and extreme levels of emotional involvement, such as presence of hostility and distress (Coe, Davies, & Sturge-Apple, 2018). For example, high scores on enmeshed environments suggest an overly involved parent in a child's activity (e.g., overly rely on the child for help, repeatedly interrupt or talk over one another, etc.). While members may express a degree of conditional positivity and warmth, when an activity is thriving (for example: parents may say "We're doing such a good job!"), they may also quickly change behaviour becoming hostile or critical (for example: parents may say "I told you this wasn't good"). Hence, diffused boundaries and enmeshed structure of families will become intrusive, rigid, and become a hostile environment towards the child's emotional needs.

Study findings are also in accordance with Minuchin's clinical explanations of an enmeshed family system, described by extreme exhaustive relationships and great proximity among family members (Minuchin et al., 1978). Other research suggests that girls who experienced enmeshed, negative and / or discouraged relationships with their mothers will have greater chances to skip meals and restrict diet in the upcoming year (Ogden & Steward, 2000; Sidor, Baba, Marton-Vasarhelyi, & Chereches, 2015), which is something also evidenced in the current research. Additionally, research reported bulimic and anorexic characteristics in college students, both linked with absence of a supportive, positive, and emotionally secured and connected parental environment (Strober & Humphrey, 1987; Friedlander & Siegal, 1990; Kenny & Hart, 1992).

The study also revealed that females tended to experience more problematic disordered eating behaviours compared to males, with a specific tendency to engage in dieting behaviours. Literature has widely suggested a female tendency to show more severe symptoms of AN, BN, and/or BED compared to males, looking for an attractive body emphasized by the stereotype of thinness as feminine (Argyrides, 2013). Findings did not show a relationship between eating attitudes across the range of ages 14 to 19, which supports the notion that EDs are often considered to primarily affect early adolescence / young adulthood (Rohde, Stice, Shaw, Gau, & Ohls, 2017).

As the present study suggests, enmeshed families are family members that are too close to each other, expecting to look inside the family for support and satisfaction rather than turning in addition to the larger world. This extreme closeness may restrict an individuals' growth. This was especially reported in Mediterranean countries, similar to Cyprus, where a big percentage of family members are traditionally very close to each other (Argyrides, 2013). Most Cypriot families may easily fall under the definition of an enmeshed family system with diffused boundaries, characterized by extreme proximity and intensive relationships.

Description of rigidity, less adaptability, and open or problematic communication in families were not supported by our adolescents' reports, with no significant findings. With regards to the family adaptability

scale, the low value of alpha in the study may have affected the results. This can be due to low number of questions and / or poor inter-relatedness between items in the scale.

7.3. Difference Between Adolescent's and Parent's Perception Upon Parenting and Family Functioning

The current study investigated the possible significant discrepancy, which might appear in the comparison between adolescents' perceptions in regards to family functioning and parenting compared to their parents' perceptions upon this expression, within the family context. Adolescents and parents answered the same questionnaires upon examining their perception upon family structure, parent-adolescent communication, and parenting. We should note that findings reflect adolescent's subjective experiences, which might not essentially be consistent with parent's perception or/and other family member's perceptions.

Results indicated a significant discrepancy between adolescents' and parents' perception on family dynamics variables, indicating a gap between their perceptions. Research has addressed low agreement between parents' and adolescents' perception concerning parenting style and family functioning. In specific, study results indicated that (a) parents perceived the presence of a healthier family structure, (b) believed that they engage in an authoritative parenting style, (c) promoted cohesion within the family context, and (d) promoted open communication between family members. Compared to their adolescent child, they acknowledged (a) less expression of family cohesiveness, (b) less open communication, and (c) decreased authoritative parenting style.

These findings are extremely remarkable and advantageous if taken into consideration in early prevention/intervention. If adolescents interpret differently parents' behaviours, and hence the former, which is an important observer to this expression, will be influenced from unhealthy perceived dysfunctional parenting, then the former will result in problematic eating behaviours similar to the findings addressed in previous sections.

This discrepancy and disorganized perception between children and parents is extremely interesting and shows to be also in accordance with the literature. Findings from a systematic review (Viesel & Allan,

2014) performed upon 17 papers on family functioning and EDs indicated a relationship between the two, with adolescents' perceptions of their families to be more disorganized compared to the perception of one or both of their parents. Moreover, in a research by Dancyger, Fornari, Scionti, Wisotsky, and Sunday (2005) parents also rated family functioning (including cohesion and open communication) as significantly healthier than their children did.

Conclusively, the study supports previous research and suggests that perceived disorganized and problematic schemas from the adolescent's point of view within the family context will result in peculiar patterns of interaction with parents (Morgan, 2002) and may result in disordered eating. As present study provides evidence about the link of disordered eating with problematic parenting and family functioning, the importance of considering adolescents' perception upon families' interactional styles in EDs is fundamental. Thus, the low agreement between adolescents' and parents' family functioning perceptions seems to be an important predictor of the prevention or future existence of EDs.

7.4. Association Between Negative Life Events and Disordered Eating

The study found that transitional negative life events are associated with emotional and physical problems in adolescents. The results are consistent with previous literature stating that stressful life events in adolescents are more likely to play a critical role (Beck, 1995; Sharpe et al., 2018) upon their eating behaviours. In the presence of negative emotional events, adolescents were more likely to show higher levels of disordered eating behaviours. More specifically, adolescents who had experienced death of a family member tended to present more disordered eating behaviour, with a tendency to engage more likely in oral control behaviours. The findings corroborate research stating that when the stability and the cohesiveness of the system is threatened, adolescents are more likely to experience anxiety, which will conclusively lead to disordered eating. Numerous interpersonal stressors, general daily hassles, and overwhelmed emotional events operationalized both as the number of stressors and as one's appraisal of stressful events may increase

negative affect, preceding in the occurrence of disordered eating behaviours. But most importantly, traumatic events such as bereavement can be an important trigger for EDs (Goldschmidt et al., 2014).

Moreover, when participants experienced either health and/or mental problems resulting in received therapy were more likely to engage in disordered eating behaviours. In specific, significant associations were found between therapy with dieting and bulimia. Finding explains the belief that negatively perceived life events are associated with disordered eating behaviours and should be taken into consideration as prognostic factors when assessing systemically the family life structure of an adolescent prone to develop EDs. When a symptom is placed in a central role, automatically reorganise the system around the problem, becoming the central principle of the family's life. As a consequence, every day-to-day decision is becoming difficult and the disruption of life's continuity is a basic element (Eisler, 2005).

Overall, study confirms that disordered eating can be triggered by a number of life changes. Acknowledge, support and empathetic approach should be an important factor, underlining the need for greater awareness at times of change (Berge, Loth, Hanson, Croll-Lampert, & Neumark-Sztainer, 2012).

7.5. Relationship Between Anxiety, Depression with Disordered Eating

Study findings acknowledged depression and anxiety parameters in the life of adolescents, which are often related with disordered eating behaviors (Measelle, Stice, & Hogansen, 2006; Fulkerson, Sherwood, Perry, Neumark-Sztainer, & Story, 2004), imbalanced dietary pattern, and unhealthy emotional eating behaviour (Adam & Epel, 2007; Dallman et al., 2003). Findings corroborated previous literature, connecting anxiety and depression with disordered eating behaviours. Specifically, adolescents who experience depressive symptoms tended to engage more in disordered eating, mostly bulimic attitudes. Moreover, adolescents who had experienced anxiety tended to engage in disordered eating, with both bulimic and dieting tendencies.

This evidence supports the theory of stress-induced eating as a coping mechanism, because adolescents may try to escape from the unpleasant emotion, because eating-induced stress reduction is associated with

reward feelings (Adam & Epel, 2007; Dallman et al., 2003). Adolescent's perceived depression has been associated with a diet less in fruits and vegetables, more snacks, and more fatty foods in previous literature (Simon, Wardle, Jarvis, Steggles, & Cartwright, 2003; De Vriendt et al., 2011).

While anxiety and depression is a common condition present among children and adolescents, it should be always an important factor to be assessed, especially when literature finds a comorbid relationship between depression and anxiety disorders with disordered eating attitudes (Johnson & Wardle, 2005, Sharpe et al., 2018).

7.6. Parent Psychoeducational Prevention / Intervention

Building on the current study findings, research was mostly interested to address the problematic areas (strengths and weaknesses) of parents and evolve with a prevention / intervention program, in order to promote new, healthy behaviours. The aim of the psychoeducation was the early prevention in the family system at risk of disordered eating behaviours. As family dynamics, parenting, and negative perceived experiences in adolescence show to have an important power and become mainly the factors that predispose and influence a child to engage in disordered eating behaviour, the study evolved by having parents as the allies in adolescent EDs prevention. Additionally, the intervention in the level of parents aimed for early prevention / intervention with at risk adolescents with EDs, which are not diagnosed.

In the light of the importance of familial factors in the etiology of EDs, systemic parent intervention in the current study puts parents in a position to see their dysfunctional adaptive mechanisms within their system in order to change them and adapt new ones (Lock & Fitzpatrick, 2009). This helped by listening new ways of handling the problem, being creative and flexible, and attempting in adoption of new healthier behaviours. This information makes group members believe again into their power and leave from sessions with a determination in their inner capability to discover their unique solution (Eisler, 2005). As this is an essential hypothesis tested, the instructor directed parent's participation in the psychoeducation sessions, thus

influenced conversations about family dynamics and behaviours, in a way that catalyzed parent's strengths, wisdom, and support. This challenged and encouraged any behavioural and transactional change.

Results from the current study intervention suggested enhancement of the capacity of healthier involvement. Specifically, findings from the experimental intervention showed that parent's psychoeducation and guidance on important family parameters succeeded in (a) reducing parent's disordered eating behaviours, (b) promoting an authoritative parenting style and authoritarian parenting was contained, (c) improving family functioning by enhancing healthier cohesion, (d) engaging in better adaptability structure, and (e) better open communication between family members.

In contrast, findings from the control intervention showed (a) small negative changes in most eating disorders attitudes, (b) no change in adaptability patterns within the family, (c) small decrease in open communication, and (d) small decrease in authoritative and authoritarian parenting style.

Findings suggested that in the experimental group intervention, seminars gave the opportunity to parents to process and re-establish appropriate parental authority as the main focus around which change seems to take place and had greater impact compared to the control group intervention seminars. Psychoeducation also served a chance for parents to start redefining their role, regaining healthy control on other areas of the adolescent's life. Parents were able to take some distance and disengage themselves from the way they have been trapped with a symptomatic behaviour. Also, the results of the current study intervention created healthier and constructive family dynamics, as well as secure family environments. In contrast, results from the control intervention showed no changes in family functioning and parenting.

Consequently, findings from the study intervention emphasized that the relationship between parents and adolescents can be improved and therefore contribute greatly when coping with disordered eating. When a child loses self-control over life, he / she starts to search for external means of coping as a way to resolve and cope with internal conflicts. On the basis of this idea, effective and healthy parenting may be beneficial by helping adolescents to avoid externalizing their need to feel secure over eating (McGoldrick, Gerson, & Petry, 2008). Empowerment and initiation of healthier parenting and family functioning may have a positive

effect in a child's confidence and self-esteem, decreasing child's self-control over eating and prevent early on disordered eating and / or EDs presence. Additionally, creating a sense of security and warmth should be the crucial point of the interventions. Early changes in the family context can be feasible, in order to turn families into a valuable resource; something which is evidenced from the current research.

Summarizing, targeting in early prevention may enhance the possibility to minimize the presence of possible signs of disordered eating behaviours. Early intervention in the level of parents and in the level of the family is recommended and can be used as a start point framework for changing family system's structure through (a) exposing the rules and beliefs that dictate a problematic and dysfunctional system, and also (b) influence healthier functioning with structured boundaries, (c) introducing healthy ways of interaction with the presence of an authoritative parenting, and (d) promoting family stability with better adaptability mechanisms.

7.7. Limitations

The study has several limitations. First, the sample is relatively small and collected only from two of the four districts in Cyprus. Second, although this study was aimed at studying self-perceptions of adolescents, relying on self-report questionnaires might leave open some well-documented limitations related to this kind of method. For example, responders may exaggerate or be embarrassed to reveal information due to the nature of the questionnaires that explored sensitive issues. Third, because of the quite large questionnaire battery, this placed burden on participants and therefore less of them completed the questionnaires on depression (RADS-2) and anxiety (SCARED), which were last in order. Fourth, data has been collected investigating general parents' perception on family climate and eating behaviours, leaving out their direct and indirect influence about their eating habits to children. Fifth, the study population had a medium socioeconomic status and an overall healthy diet and low overweight percentage. Consequently, one cannot claim that participants represent the population at large. Sixth, some scales had low internal reliability. The low values of alpha (less than .60 - .70) in certain scales, such as the oral control eating behaviour subscale

(EAT-26), the parental bonding total score scale (PBI-II), the family adaptability subscale (FACES-III), and the permissive parenting style subscale (PAQ) should be further assessed in future studies. Seventh, a decision was taken to exclude the use of parental bonding total score scale in the analyses due to the existence of subscales measuring the same variable. Eighth, the study did not include all members of the family (siblings) to assess whether siblings are at risk of developing EDs. Involvement of all family members and significant others may bring greater results in disordered eating and/or EDs prevention. Ninth, handling missing data using pairwise deletion might have some challenges when drawing inferences to the population. Finally, there is a need for more reliable estimates of population parameters, in order to use effect sizes for important comparisons.

7.8. Future Research

The findings provided evidence to suggest that, in addition to parental interactions that contribute to the children upbringing (Stein et al., 1994; Tiggemann & Lowes, 2002; Waugh & Bulik, 1999), general dysfunctional parenting is related to the risk of eating disorder symptoms in non-clinical individuals. Further research should assess the relationship between eating disorder pathology and parenting style with (a) a larger sample size, (b) revision of certain scales with low values of alpha, and (c) also extend the information obtained from siblings, as well. This will help understand any differences in the microclimate of each child, personality traits, and additionally assess the psychological aspects of the general family climate and its reaction to eating behaviours.

Furthermore, individualized interventions on parental consultation and psychoeducation focusing on how parenting styles influence their relationship with the adolescent should be part of eating disorder intervention programs. Prolonged individualized interventions to parents and/or to all family members will gain the advantage of time to integrate personal goal setting, healthy coping mechanisms, and family functioning.

In addition to parents, other adults in close contact with adolescents, such as general practitioners, paediatricians, school counsellors, and gym teachers may contribute their observations and perception in an effort to detect early on any signs of ED development. Health care professionals must be very careful on choosing the suitable parent intervention for the family system (Carr, 2009). Future research must continue evaluating different parental interventions for EDs in younger children population to facilitate early detection of at-risk behaviours and development of prevention and early intervention programmes aiming to establish healthy eating behaviours and a positive body image.



CHAPTER 8

CONCLUSION

The findings are consistent with previous research and demonstrate that ED symptoms in non-clinical sample of adolescents were related to less adaptive parenting styles and certain negative life events (such as death in the family). After a series of psychoeducational seminars focusing on EDs background and healthy parenting, parents were more likely to engage in more adaptive styles of parenting. These findings have potential implications for clinicians and other health care providers working with parents.

Caution should be taken in the interpretation of results as several factors may have affected the statistical power and precision of findings. There was a difficulty obtaining significant findings from the oral control eating behaviour subscale (EAT-26), the family adaptability subscale (FACES-III), and the permissive parenting style subscale (PAQ), possibly due to the low values of alpha gained in the study. One possible reason could be the small number of questions and / or poor inter-relatedness between items that should be further assessed and revised in future studies. The parental bonding total score scale (PBI-II) also gained a low value of alpha, although it was not used in the study, because the care and overprotection subscales measured the same dimension.

In the presence of higher levels of ED symptoms, families were more likely to present an enmeshed structure with parents showing high control and overprotectiveness, engaging to an authoritarian parenting style. The study supports that transitional negatively perceived life events were associated with psychological symptoms of disordered eating and should be taken into consideration when assessing the family system. Negative life events and increased levels of depression and anxiety suggested increased likelihood for higher levels of disordered eating, with future ED pathology. For example, poor health status, school difficulties, death of a family member, and numerous changes in the parents' schedule influenced the occurrence and maintenance of EDs. Therefore, it is expected that parents who tend to use the authoritative parenting style are better able to understand adolescent's emotional state, set boundaries to their children, promote emotional growth, adopt healthy coping mechanisms, and keep the family as much cohesive and

structured as possible with eventual promotion of healthy eating behaviours. Also, parents who take into consideration the impact of negative life events in adolescent's life are more likely to increase the possibility of future initiation or maintenance of disordered eating and EDs in general.

Last, this study highlighted the importance of including all aspects of parenting in prevention / early intervention of EDs, by examining family functioning influence on possible disordered eating in adolescents. The study highlights the value of a systemic parent intervention, providing knowledge on specific areas that have implications for improved and healthier family functioning strategies. It also stressed the importance of examining adolescents' perceptions and expectations regarding their relationships with parents, looking for healthy relationships and exploring constructive coping strategies in the family system.

The findings of the study lead to the conclusions that (a) parents with authoritarian parenting style restrict child's autonomy, freedom, and voice, (b) enmeshed structure promotes restrictiveness and chaos in the family context, and (c) negative or stressful events which might be present in the child's life may trigger disordered eating, in addition to high levels of depression and anxiety. The need to stress to parents early on of the importance of promoting healthy parenting is crucial. By psycheducating parents of the importance to set healthier boundaries, rules, restrictions, and simultaneously understand and manage a child's behaviour is more likely to promote positive effect and decrease the likelihood for presence of disordered eating, minimize levels of depression and anxiety, and also promote positive emotional adjustment in adolescents. There is a need for replication studies to produce more conclusive evidence in this applied field.

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Research Material Phase I

Appendix A. Individual's consent form (adolescent and parent) for participation in research

ΕΝΤΥΠΑ ΣΥΓΚΑΤΑΘΕΣΗΣ

για συμμετοχή σε πρόγραμμα έρευνας

(Τα έντυπα αποτελούνται συνολικά από 3 σελίδες)

Καλείστε να συμμετάσχετε σε ένα ερευνητικό πρόγραμμα. Πιο κάτω (βλ. **«Πληροφορίες για Ασθενείς ή/και Εθελοντές»**) θα σας δοθούν εξηγήσεις σε απλή γλώσσα σχετικά με το τι θα ζητηθεί από εσάς ή/και τι θα σας συμβεί σε εσάς, εάν συμφωνήσετε να συμμετάσχετε στο πρόγραμμα. Θα σας περιγραφούν οποιοδήποτε κίνδυνοι μπορεί να υπάρξουν ή ταλαιπωρία που τυχόν θα υποστείτε από τη συμμετοχή σας στο πρόγραμμα. Θα σας επεξηγηθεί με κάθε λεπτομέρεια τι θα ζητηθεί από εσάς και ποιος ή ποιοι θα έχουν πρόσβαση στις πληροφορίες ή/και άλλο υλικό που εθελοντικά θα δώσετε για το πρόγραμμα. Θα σας δοθεί η χρονική περίοδος για την οποία οι υπεύθυνοι του προγράμματος θα έχουν πρόσβαση στις πληροφορίες ή/και υλικό που θα δώσετε. Θα σας επεξηγηθεί τι ελπίζουμε να μάθουμε από το πρόγραμμα σαν αποτέλεσμα και της δικής σας συμμετοχής. Επίσης, θα σας δοθεί μία εκτίμηση για το όφελος που μπορεί να υπάρξει για τους ερευνητές ή/και χρηματοδότες αυτού του προγράμματος. **Δεν πρέπει να συμμετάσχετε, εάν δεν επιθυμείτε ή εάν έχετε οποιουσδήποτε ενδοιασμούς που αφορούν τη συμμετοχή σας στο πρόγραμμα.** Εάν αποφασίσετε να συμμετάσχετε, πρέπει να αναφέρετε εάν είχατε συμμετάσχει σε οποιοδήποτε άλλο πρόγραμμα έρευνας μέσα στους τελευταίους 12 μήνες.

Είστε ελεύθεροι να αποσύρете οποιαδήποτε στιγμή εσείς επιθυμείτε την συγκατάθεση για την συμμετοχή σας στο πρόγραμμα. Έχετε το δικαίωμα να υποβάλετε τυχόν παράπονα ή καταγγελίες, που αφορούν το πρόγραμμα στο οποίο συμμετέχετε, προς την Επιτροπή Βιοηθικής που ενέκρινε το πρόγραμμα ή ακόμη και στην Εθνική Επιτροπή Βιοηθικής Κύπρου.

Πρέπει όλες οι σελίδες των εντύπων συγκατάθεσης να φέρουν το ονοματεπώνυμο και την υπογραφή σας.

Πατέρας:

Ονοματεπώνυμο:	.....	Τηλέφωνο:	.....
Υπογραφή:		Ημερομηνία:	

Μητέρα:

Ονοματεπώνυμο:	.....	Τηλέφωνο:	.....
Υπογραφή:		Ημερομηνία:	

Ο έχων τη γονική μέριμνα:

Ονοματεπώνυμο:	.....	Τηλέφωνο:	.....
Υπογραφή:		Ημερομηνία:	

ΕΝΤΥΠΑ ΣΥΓΚΑΤΑΘΕΣΗΣ

για συμμετοχή σε πρόγραμμα έρευνας
(Τα έντυπα αποτελούνται συνολικά από 3 σελίδες)

Σύντομος Τίτλος του Προγράμματος στο οποίο καλείστε να συμμετάσχετε

ΟΙΚΟΓΕΝΕΙΑΚΕΣ ΣΧΕΣΕΙΣ ΚΑΙ ΓΟΝΙΚΗ ΕΓΓΥΤΗΤΑ

Δίδετε συγκατάθεση για τον εαυτό σας ή/και για κάποιο άλλο άτομο;

Εάν πιο πάνω απαντήσατε για κάποιον άλλο, τότε δώσετε λεπτομέρειες και το όνομα του.

Όνομα Μαθητή:

Ερώτηση	ΝΑΙ ή ΟΧΙ
Συμπληρώσατε τα έντυπα συγκατάθεσης εσείς προσωπικά;	
Τους τελευταίους 12 μήνες έχετε συμμετάσχει σε οποιοδήποτε άλλο ερευνητικό πρόγραμμα;	
Διαβάσατε και καταλάβατε τις πληροφορίες για ασθενείς ή/και εθελοντές;	
Είχατε την ευκαιρία να ρωτήσετε ερωτήσεις και να συζητήσετε το Πρόγραμμα;	
Δόθηκαν ικανοποιητικές απαντήσεις και εξηγήσεις στα τυχόν ερωτήματά σας;	
Καταλαβαίνετε ότι μπορείτε να αποσυρθείτε από το πρόγραμμα, όποτε θέλετε;	
Καταλαβαίνετε ότι, εάν αποσυρθείτε, δεν είναι αναγκαίο να δώσετε οποιεσδήποτε εξηγήσεις για την απόφαση που πήρατε;	
Συμφωνείτε να συμμετάσχετε στο πρόγραμμα;	
Με ποιόν υπεύθυνο μιλήσατε;	

Πατέρας:

Όνοματεπώνυμο:		Τηλέφωνο:	
Υπογραφή:		Ημερομηνία:	

Μητέρα:

Όνοματεπώνυμο:		Τηλέφωνο:	
Υπογραφή:		Ημερομηνία:	

Ο έχων τη γονική μέριμνα:

Όνοματεπώνυμο:		Τηλέφωνο:	
Υπογραφή:		Ημερομηνία:	

ΕΝΤΥΠΑ ΣΥΓΚΑΤΑΘΕΣΗΣ

για συμμετοχή σε πρόγραμμα έρευνας

(Τα έντυπα αποτελούνται συνολικά από 3 σελίδες)

Σύντομος Τίτλος του Προγράμματος στο οποίο καλείστε να συμμετάσχετε

ΟΙΚΟΓΕΝΕΙΑΚΕΣ ΣΧΕΣΕΙΣ ΚΑΙ ΓΟΝΙΚΗ ΕΓΓΥΤΗΤΑ**ΠΛΗΡΟΦΟΡΙΕΣ ΓΙΑ ΑΣΘΕΝΕΙΣ ή/και ΕΘΕΛΟΝΤΕΣ**

Αγαπητέ γονέα,

Είμαι μια διδακτορική φοιτήτρια στο τομέα της Ψυχολογίας, από το Πανεπιστήμιο Λευκωσίας και χρειάζομαι τη βοήθειά σας για τη συμπλήρωση του ερωτηματολογίου μου όσο αφορά τη διδακτορική μου διατριβή. Η παρούσα έρευνα έχει ως σκοπό να μελετήσει τη γονική εγγύτητα στη ζωή των εφήβων (τρόποι επικοινωνίας και σύνδεσης), καθώς και να συγκρίνει τη σχέση γονέα και παιδιού μέσα στην οικογένεια.

Η έρευνα διαχωρίζεται σε δύο ενότητες. (Α) Αρχικά, δίνεται συγκατάθεση, με την υπογραφή σας σε αυτά τα έγγραφα, για τη συμπλήρωση δύο ερωτηματολογίων, η οποία πρέπει να γίνει από το **παιδί** και τον **γονέα**. Η συμπλήρωση του ερωτηματολογίου σας θα έχει διάρκεια 20 λεπτά. Παράλληλα, το παιδί θα συμπληρώσει αντίστοιχο ερωτηματολόγιο στο σχολείο κατά τη διάρκεια του μαθήματός του, αφότου όμως αποστείλετε υπογεγραμμένα τα έντυπα συγκατάθεσης και έχετε ενημερωθεί για το περιεχόμενο του ερωτηματολογίου του παιδιού σας (ερωτηματολόγιο επισυνάπτεται). Τα δύο ερωτηματολόγια συμπεριλαμβάνουν δημογραφικές ερωτήσεις και αναζητούν πληροφορίες για την υφιστάμενη σχέση γονέα-παιδιού. Ζητείται όπως συμπληρωθεί με κάθε εχεμύθεια και ειλικρίνεια. Οι πληροφορίες παρεμύνουν εμπιστευτικές υπό την ευθύνη του ερευνητή και θα διατηρηθεί ανωνυμία συμμετεχόντων. Παρακαλώ όπως συζητήσετε τις απαντήσεις σας με κάποιο της οικογένειας κατά τη διάρκεια της συμπλήρωσης του ερωτηματολογίου! Το δικό σας ερωτηματολόγιο θα πρέπει να αποσταλεί/επιστραφεί με το σεσημασμένο σφραγισμένο φάκελο που σας έχει δοθεί στο Τμήμα Ανθρωπιστικών Σπουδών του Πανεπιστημίου Λευκωσίας. (Β) Η δεύτερη φάση της παρούσας έρευνας είναι η πρόσκληση γονέων σε μια σειρά 6 εκπαιδευτικών σεμιναρίων. Τα σεμινάρια θα έχουν διάρκεια ενάμιση ώρα και σκοπός τους θα είναι η ενδυνάμωση και ενημέρωση των γονέων όσο αφορά τις οικογενειακές σχέσεις. Η πρόσκληση των γονέων θα γίνει με επιλογή και μετά από προσωπική πρόσκληση του ψυχολόγου/ερευνητή. Γι' αυτό το λόγο ζητείται το τηλέφωνό σας. Οποιαδήποτε δεδομένα συλλεχθούν θα χρησιμοποιηθούν μόνο για σκοπούς της συγκεκριμένης έρευνας και θα ληφθούν όλα τα απαραίτητα μέτρα διαφύλαξης των δεδομένων. Η συμμετοχή στην έρευνα είναι εθελοντική. Η έρευνα προϋποθέτει τη σύμφωνη γνώμη του παιδιού ανεξαρτήτως της ενυπόγραφης συγκατάθεσης του γονέα.

Για επιπλέον ερωτήσεις, καθώς και πληροφορίες για τα αποτελέσματα της έρευνας, παρακαλώ όπως επικοινωνήσετε με τη Μικαέλλα Χριστοδούλου (κύρια ερευνήτρια) στο τηλέφωνο 96-701215 ή στην ηλεκτρονική διεύθυνση mikaella.christodoulou@outlook.com. Σε περίπτωση που έχετε οποιαδήποτε παράπονο ή/και καταγγελία σχετικά με την παρούσα έρευνα μπορείτε να επικοινωνήσετε με ανεξάρτητο άτομο, ακαδημαϊκό του Πανεπιστημίου κο Κωνσταντίνο Αδαμίδη, στον αριθμό 22-841675 ή στην ηλεκτρονική διεύθυνση adamides.c@unic.ac.cy. Επιστημονική υπεύθυνη της παρούσας έρευνας είναι η Δρ. Ιουλία Παπαγεώργη (Πανεπιστήμιο Λευκωσίας, τηλ. επικοινωνίας 22-842239 και ηλεκτρονική διεύθυνση papageorgi.i@unic.ac.cy). Παρακαλώ όπως παραδώσετε τα έντυπα συγκατάθεσης στον ερευνητή, ενώ το έντυπο ενημέρωσης παραμένει σε εσάς. Βρίσκομαι στη διάθεσή σας για οποιεσδήποτε ερωτήσεις!

Σας ευχαριστώ πολύ εκ των προτέρων για τη συμπλήρωση του ερωτηματολογίου.

Πατέρας:

Όνοματεπώνυμο:	.....	Τηλέφωνο:	.....
Υπογραφή:		Ημερομηνία:	

Μητέρα:

Όνοματεπώνυμο:	.....	Τηλέφωνο:	.....
Υπογραφή:		Ημερομηνία:	

Ο έχων τη γονική μέριμνα:

Όνοματεπώνυμο:	.....	Τηλέφωνο:	.....
Υπογραφή:		Ημερομηνία:	

Appendix B. School's consent form for participation in research

ΕΝΤΥΠΑ ΣΥΓΚΑΤΑΘΕΣΗΣ

για συμμετοχή σε πρόγραμμα έρευνας
(Τα έντυπα αποτελούνται συνολικά από 3 σελίδες)

Καλείστε να συμμετάσχετε σε ένα ερευνητικό πρόγραμμα. Πιο κάτω (βλ. **«Πληροφορίες για Ασθενείς ή/και Εθελοντές»**) θα σας δοθούν εξηγήσεις σε απλή γλώσσα σχετικά με το τι θα ζητηθεί από εσάς ή/και τι θα σας συμβεί σε εσάς, εάν συμφωνήσετε να συμμετάσχετε στο πρόγραμμα. Θα σας περιγραφούν οποιοδήποτε κίνδυνοι μπορεί να υπάρξουν ή ταλαιπωρία που τυχόν θα υποστείτε από τη συμμετοχή σας στο πρόγραμμα. Θα σας επεξηγηθεί με κάθε λεπτομέρεια τι θα ζητηθεί από εσάς και ποιος ή ποιοι θα έχουν πρόσβαση στις πληροφορίες ή/και άλλο υλικό που εθελοντικά θα δώσετε για το πρόγραμμα. Θα σας δοθεί η χρονική περίοδος για την οποία οι υπεύθυνοι του προγράμματος θα έχουν πρόσβαση στις πληροφορίες ή/και υλικό που θα δώσετε. Θα σας επεξηγηθεί τι ελπίζουμε να μάθουμε από το πρόγραμμα σαν αποτέλεσμα και της δικής σας συμμετοχής. Επίσης, θα σας δοθεί μία εκτίμηση για το όφελος που μπορεί να υπάρξει για τους ερευνητές ή/και χρηματοδότες αυτού του προγράμματος. **Δεν πρέπει να συμμετάσχετε, εάν δεν επιθυμείτε ή εάν έχετε οποιουσδήποτε ενδοιασμούς που αφορούν τη συμμετοχή σας στο πρόγραμμα.** Εάν αποφασίσετε να συμμετάσχετε, πρέπει να αναφέρετε εάν είχατε συμμετάσχει σε οποιοδήποτε άλλο πρόγραμμα έρευνας μέσα στους τελευταίους 12 μήνες.

Είστε ελεύθεροι να αποσύρετε οποιαδήποτε στιγμή εσείς επιθυμείτε τη συγκατάθεση για τη συμμετοχή σας στο πρόγραμμα. Έχετε το δικαίωμα να υποβάλετε τυχόν παράπονα ή καταγγελίες, που αφορούν το πρόγραμμα στο οποίο συμμετέχετε, προς την Επιτροπή Βιοηθικής που ενέκρινε το πρόγραμμα ή ακόμη και στην Εθνική Επιτροπή Βιοηθικής Κύπρου.

Πρέπει όλες οι σελίδες των εντύπων συγκατάθεσης να φέρουν το ονοματεπώνυμο και την υπογραφή σας.

Συμμετέχοντας:

Ονοματεπώνυμο:		Τηλέφωνο:	
Υπογραφή:		Ημερομηνία:	

Σχολείο:	
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ΕΝΤΥΠΑ ΣΥΓΚΑΤΑΘΕΣΗΣ

για συμμετοχή σε πρόγραμμα έρευνας
(Τα έντυπα αποτελούνται συνολικά από 3 σελίδες)

Σύντομος Τίτλος του Προγράμματος στο οποίο καλείστε να συμμετάσχετε

ΟΙΚΟΓΕΝΕΙΑΚΕΣ ΣΧΕΣΕΙΣ ΚΑΙ ΓΟΝΙΚΗ ΕΓΓΥΤΗΤΑ

Δίδετε συγκατάθεση για τον εαυτό σας ή/και για κάποιο άλλο άτομο;

Εάν πιο πάνω απαντήσατε για κάποιον άλλο, τότε δώσετε λεπτομέρειες και το όνομα του.

Ερώτηση	ΝΑΙ ή ΟΧΙ
Συμπληρώσατε τα έντυπα συγκατάθεσης εσείς προσωπικά;	
Τους τελευταίους 12 μήνες έχετε συμμετάσχει σε οποιοδήποτε άλλο ερευνητικό πρόγραμμα;	
Διαβάσατε και καταλάβατε τις πληροφορίες για ασθενείς ή/και εθελοντές;	
Είχατε την ευκαιρία να ρωτήσετε ερωτήσεις και να συζητήσετε το Πρόγραμμα;	
Δόθηκαν ικανοποιητικές απαντήσεις και εξηγήσεις στα τυχόν ερωτήματά σας;	
Καταλαβαίνετε ότι μπορείτε να αποσυρθείτε από το πρόγραμμα, όποτε θέλετε;	
Καταλαβαίνετε ότι, εάν αποσυρθείτε, δεν είναι αναγκαίο να δώσετε οποιοδήποτε εξηγήσεις για την απόφαση που πήρατε;	
Συμφωνείτε να συμμετάσχετε στο πρόγραμμα;	
Με ποιόν υπεύθυνο μιλήσατε;	

Συμμετέχοντας:

Ονοματεπώνυμο:	Τηλέφωνο:
Υπογραφή:		Ημερομηνία:	

Σχολείο:	
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ΕΝΤΥΠΑ ΣΥΓΚΑΤΑΘΕΣΗΣ

για συμμετοχή σε πρόγραμμα έρευνας

(Τα έντυπα αποτελούνται συνολικά από 3 σελίδες)

Σύντομος Τίτλος του Προγράμματος στο οποίο καλείστε να συμμετάσχετε

ΟΙΚΟΓΕΝΕΙΑΚΕΣ ΣΧΕΣΕΙΣ ΚΑΙ ΓΟΝΙΚΗ ΕΓΓΥΤΗΤΑ**ΠΛΗΡΟΦΟΡΙΕΣ ΓΙΑ ΑΣΘΕΝΕΙΣ ή/και ΕΘΕΛΟΝΤΕΣ**

Αγαπητό Σχολείο,

Είμαι μια διδακτορική φοιτήτρια στο τομέα της Ψυχολογίας από το Πανεπιστήμιο Λευκωσίας και χρειάζομαι τη βοήθειά σας για τη συμπλήρωση του ερωτηματολογίου μου όσο αφορά τη διδακτορική μου διατριβή. Έχω εξασφαλίσει την απαραίτητη άδεια από τη Βιοηθική Επιτροπή Κύπρου (συνημμένη αδειοδότηση). Θα παρακαλούσα τη δική σας έγκριση για τη χορήγηση του ερωτηματολογίου μου σε μαθητές και γονείς που εμπíμπουν στην 1η μέχρι 3η τάξη του λυκείου σας. Η παρούσα έρευνα έχει ως σκοπό να μελετήσει τις οικογενειακές σχέσεις και να συγκρίνει τη σχέση γονέα - παιδιού μέσα στην οικογένεια. Η έρευνα διαχωρίζεται σε δύο ενότητες και συμπεριλαμβάνει τα εξής. (Α) Αρχικά, οι έφηβοι θα ενημερωθούν για την έρευνα και θα πρέπει να προωθήσουν το έντυπο συγκατάθεσης στους γονείς πριν προχωρήσουν σε επόμενη φάση για συμπλήρωση του ερωτηματολογίου τους. Αρχικά με την υπογραφή του γονέα για τη συμπλήρωση δύο ερωτηματολογίων δίνεται συγκατάθεση για το **παιδί** και τον **γονέα**. Τα δύο ερωτηματολόγια συμπεριλαμβάνουν δημογραφικές ερωτήσεις και αναζητούν πληροφορίες για τη υφιστάμενη σχέση γονέα-παιδιού. Ο γονέας θα παραλάβει το δικό του ερωτηματολόγιο, τα έντυπα συγκατάθεσης και το ερωτηματολόγιο του παιδιού του (προς ενημέρωση του περιεχομένου). Οι γονείς θα πρέπει (α) να αποστείλουν/επιστρέψουν το σεσημασμένο σφραγισμένο φάκελο που τους έχει δοθεί στο Τμήμα Ανθρωπιστικών Σπουδών του Πανεπιστημίου Λευκωσίας και (β) να υπογράψουν τα έντυπα συγκατάθεσης του παιδιού. Αφότου επιστραφούν, το παιδί θα συμπληρώσει αντίστοιχο ερωτηματολόγιο στο σχολείο κατά την περίοδο του μαθήματός του, με διάρκεια 20 λεπτών. (Β) Η δεύτερη φάση της παρούσας έρευνας είναι η πρόσκληση γονέων σε μια σειρά 6 εκπαιδευτικών σεμιναρίων. Τα σεμινάρια θα έχουν διάρκεια ενάμιση ώρα και σκοπός τους θα είναι η ενδυνάμωση και ενημέρωση των γονέων όσο αφορά τις οικογενειακές σχέσεις. Η πρόσκληση των γονέων θα γίνει με επιλογή και μετά από προσωπική πρόσκληση του ψυχολόγου/ερευνητή. Η συμμετοχή στην έρευνα είναι εθελοντική. Οποιαδήποτε δεδομένα συλλεχθούν θα χρησιμοποιηθούν μόνο για σκοπούς της συγκεκριμένης έρευνας. Παρακαλώ όπως δείτε τα έντυπα συγκατάθεσης του γονέα για ενημέρωση.

Για επιπλέον ερωτήσεις, καθώς και πληροφορίες για τα αποτελέσματα της έρευνας, παρακαλώ όπως επικοινωνήσετε με τη Μικαέλλα Χριστοδούλου (κύρια ερευνήτρια) στο τηλέφωνο 96-701215 ή στην ηλεκτρονική διεύθυνση mikaella.christodoulou@outlook.com. Σε περίπτωση που έχετε οποιαδήποτε παράπονο ή/και καταγγελία σχετικά με την παρούσα έρευνα μπορείτε να επικοινωνήσετε με ανεξάρτητο άτομο, ακαδημαϊκό του Πανεπιστημίου, κο Κωνσταντίνο Αδαμίδα, στον αριθμό 22-841675 ή στην ηλεκτρονική διεύθυνση adamides.c@unic.ac.cy. Επιστημονική υπεύθυνη της παρούσας έρευνας είναι η Δρ. Ιουλία Παπαγεώργη (Πανεπιστήμιο Λευκωσίας, τηλ. επικοινωνίας 22-842239 και ηλεκτρονική διεύθυνση papageorgi.i@unic.ac.cy). Βρίσκομαι στη διάθεσή σας για οποιεσδήποτε ερωτήσεις.

Βρίσκομαι στη διάθεσή σας για οποιεσδήποτε ερωτήσεις.

Συμμετέχοντας:

Όνοματεπώνυμο:		Τηλέφωνο:	
Υπογραφή:		Ημερομηνία:	

Appendix C. Demographic characteristics (adolescent)

A/A: _____

ΟΙΚΟΓΕΝΕΙΑΚΕΣ ΣΧΕΣΕΙΣ ΚΑΙ ΓΟΝΙΚΗ ΕΓΓΥΤΗΤΑ
ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ ΠΑΙΔΙΟΥ

Η παρούσα έρευνα έχει ως σκοπό να μελετήσει τη γονική εγγύτητα στη ζωή των εφήβων (τρόποι επικοινωνίας και σύνδεσης), με σκοπό να κατανοηθεί καλύτερα η σχέση γονέα και παιδιού μέσα στην οικογένεια. Τα δεδομένα που θα συλλεχθούν θα χρησιμοποιηθούν μόνο για σκοπούς της συγκεκριμένης έρευνας και θα ληφθούν όλα τα απαραίτητα μέτρα διαφύλαξης των δεδομένων. Η συμμετοχή στην έρευνα είναι εθελοντική και οι συμμετέχοντες μπορούν να αποχωρήσουν οποιαδήποτε στιγμή από την έρευνα χωρίς συνέπειες. Οι πληροφορίες παρεμένουν εμπιστευτικές υπό την ευθύνη του ερευνητή και θα διατηρηθεί ανωνυμία συμμετεχόντων.

ΜΕΡΟΣ Α:**Παρακαλώ συμπληρώστε τις παρακάτω ερωτήσεις:**

1. Ηλικία: _____
2. Φύλο: _____
3. Εθνικότητα: _____
4. Επίπεδο Εκπαίδευσης: _____
5. Βάρος: _____ kg Ύψος: _____ cm
6. Κατά την άποψή σας, υπήρξαν οποιαδήποτε γεγονότα τα οποία μπορεί να επηρέασαν αρνητικά τη συμπεριφορά σας; Εάν ναι, τότε σημειώστε.

Γεγονότα	Χρονική Περίοδος	Σημειώστε με √ αυτά που συνέβησαν.	Θεωρείτε πως σας επηρέασαν αρνητικά;
(α) Μετακόμιση σε άλλο σπίτι.			
(β) Μετακίνηση σε άλλο σχολείο.			

(γ) Επανάληψη χρονιάς στο σχολείο.			
(δ) Αρρώστεια στην οικογένεια.			
(ε) Θάνατος στην οικογένεια.			
(ζ) Διαζύγιο στην οικογένεια.			
(η) Αλλαγές στο πρόγραμμα του γονέα.			
(θ) Αδέλφια έφυγαν από το σπίτι.			
(ι) Νέο άτομο εντάχθηκε στην οικογένεια.			

7. Κατά την άποψή σας, αντιμετωπίζετε οποιεσδήποτε δυσκολίες στις σχέσεις σας με άλλα παιδιά;

0)ΝΑΙ

1)ΟΧΙ

8. Μήπως κάνετε χρήση τοξικών ουσιών στο παρόν στάδιο (ναρκωτικά ή/και αλκοόλ);

0)ΝΑΙ

1)ΟΧΙ

9. Αντιμετωπίζετε κάποιο πρόβλημα υγείας;

0)ΝΑΙ

1)ΟΧΙ

9.α. Εάν ναι, τι είδους πρόβλημα; Σημειώστε: _____

10. Μήπως αντιμετωπίζετε προβλήματα ύπνου;

0)ΝΑΙ

1)ΟΧΙ

11. Μήπως αντιμετωπίζετε δυσκολίες στο σχολείο (πχ: μαθησιακές δυσκολίες);

0)ΝΑΙ

1)ΟΧΙ

11.α. Εάν ναι, τι είδους δυσκολίες; Σημειώστε: _____

12. Γυμνάζεστε;

0)ΝΑΙ

1)ΟΧΙ

12.α. Εάν ναι, τι είδους γυμναστική κάνετε και πόσες φορές την εβδομάδα;

_____ // _____ //

(Τύπος γυμναστικής) (Πόση διάρκεια;) (Πόσο συχνά;)

13. Μήπως λαμβάνετε κάποια είδους θεραπεία (σωματική ή ψυχική);

0)ΝΑΙ

1)ΟΧΙ

13.α. Εάν ναι, τι είδους και ποιά η διάρκεια;

Σημειώστε: _____

14. Πώς θα χαρακτηρίζατε τον εαυτό σας όσο αφορά το σωματικό σας βάρος σε σχέση με άλλα παιδιά της ηλικίας σας;

A) Λιποβαρή

B) Κανονικό/η

Γ) Υπέρβαρο/η

Δ) Παχύσαρκο/η

Appendix D. Eating Attitudes Test – 26 (EAT-26)

Παρακαλώ όπως κυκλώσετε την απάντηση που σας χαρακτηρίζει καλύτερα.

- 1 = Ποτέ
 2 = Σπάνια
 3 = Μερικές φορές
 4 = Συχνά
 5 = Πολύ συχνά
 6 = Πάντα

1. Με τρομοκρατεί το να γίνω υπέρβαρος/η.	1	2	3	4	5	6
2. Αποφεύγω να τρώω όταν πεινάω.	1	2	3	4	5	6
3. Με απασχολεί το φαγητό.	1	2	3	4	5	6
4. Το ρίχνω στο φαγητό και αισθάνομαι πως δε θα μπορέσω να σταματήσω.	1	2	3	4	5	6
5. Κόβω το φαγητό μου σε μικρά κομματάκια.	1	2	3	4	5	6
6. Γνωρίζω τις θερμίδες φαγητών που καταναλώνω.	1	2	3	4	5	6
7. Αποφεύγω ειδικά τα φαγητά με υψηλή περιεκτικότητα σε υδατάνθρακες (ψωμί, ρύζι, πατάτες, κτλ).	1	2	3	4	5	6
8. Νιώθω πως οι άλλοι θα προτιμούσαν να έτρωγα περισσότερο.	1	2	3	4	5	6
9. Μετά το φαγητό κάνω εμετό.	1	2	3	4	5	6
10. Νιώθω έντονη ενοχή μετά που τρώω.	1	2	3	4	5	6
11. Με απασχολεί η επιθυμία να γίνω πιο αδύνατος/η.	1	2	3	4	5	6
12. Σκέφτομαι την κάψη θερμίδων όταν γυμνάζομαι.	1	2	3	4	5	6
13. Άλλοι άνθρωποι σκέφτονται ότι είμαι πολύ αδύνατος/η.	1	2	3	4	5	6
14. Με απασχολεί η ιδέα του να έχω λίπος στο σώμα μου.	1	2	3	4	5	6
15. Μου παίρνει περισσότερο χρόνο από τους υπόλοιπους να καταναλώσω το φαγητό μου.	1	2	3	4	5	6
16. Αποφεύγω τρόφιμα που περιέχουν ζάχαρη.	1	2	3	4	5	6
17. Καταναλώνω διαιτητικά φαγητά.	1	2	3	4	5	6
18. Νιώθω πως το φαγητό μου ελέγχει τη ζωή.	1	2	3	4	5	6
19. Δείχνω αυτοέλεγχο στο φαγητό.	1	2	3	4	5	6
20. Νιώθω πως οι άλλοι με πιέζουν να φάω.	1	2	3	4	5	6
21. Ξοδεύω πολύ χρόνο και σκέψη στο φαγητό.	1	2	3	4	5	6

22. Νιώθω άβολα μετά από την κατανάλωση γλυκών.	1	2	3	4	5	6
23. Ασχολούμε με διαιτητικές συμπεριφορές.	1	2	3	4	5	6
24. Μου αρέσει να έχω άδειο στομάχι.	1	2	3	4	5	6
25. Έχω την παρόρμηση να κάνω εμετό μετά το φαγητό.	1	2	3	4	5	6
26. Απολαμβάνω να δοκιμάζω καινούργια πλούσια φαγητά.	1	2	3	4	5	6

- A. Το ρίχνεις στο φαγητό σε σημείο που νιώθεις πως δεν θα μπορέσεις να σταματήσεις (καταναλώνεις πολύ περισσότερο φαγητό από ότι οι περισσότεροι άνθρωποι θα έτρωγαν, κάτω από τις ίδιες συνθήκες). NAI OXI
Εάν ναι, πόσο συχνά κατά τη διάρκεια της χειρότερης εβδομάδας;
- B. Έχεις κάνει ποτέ τον εαυτό σου να νιώσει άρρωστος/η (να έχεις κάνει εμετό) για να ελέγξεις το βάρος ή τη φιγούρα σου; NAI OXI
Εάν ναι, πόσο συχνά κατά τη διάρκεια της χειρότερης εβδομάδας;
- Γ. Έχεις ποτέ χρησιμοποιήσει καθαρτικά, διαιτητικά χάπια, ή/και διουρητικά για να ελέγξεις το βάρος ή τη φιγούρα σου; NAI OXI
Εάν ναι, πόσο συχνά κατά τη διάρκεια της χειρότερης εβδομάδας;
- Δ. Έχεις ποτέ νοσηλευτεί με διατροφική διαταραχή; NAI OXI
Πότε;

Appendix E. Family Adaptability and Cohesion Evaluation Scale (FACES - III)

Παρακαλώ όπως κυκλώσετε την απάντηση που περιγράφει την οικογένειά σας.

- 1 = Σχεδόν ποτέ
 2 = Μια κάθε τόσο
 3 = Μερικές φορές
 4 = Συχνά
 5 = Σχεδόν πάντα

1. Τα μέλη της οικογένειας ζητάνε βοήθεια μεταξύ τους.	1	2	3	4	5
2. Στην επίλυση προβλημάτων, οι εισηγήσεις των παιδιών ακολουθούνται.	1	2	3	4	5
3. Εγκρίνουμε τους φίλους των υπολοίπων στην οικογένεια.	1	2	3	4	5
4. Τα παιδιά έχουν λόγο στην πειθαρχία τους.	1	2	3	4	5
5. Μας αρέσει να κάνουμε πράγματα μόνο με την άμεση οικογένειά μας.	1	2	3	4	5
6. Διάφορα άτομα δρουν ως αρχηγοί στην οικογένειά μας.	1	2	3	4	5
7. Τα μέλη της οικογένειας αισθάνονται πιο κοντά σε άλλα μέλη της οικογένειας παρά σε σχέση με άτομα που βρίσκονται εκτός οικογένειας.	1	2	3	4	5
8. Η οικογένεια μου αλλάζει τον τρόπο που χειρίζεται διάφορα καθήκοντα.	1	2	3	4	5
9. Τα μέλη της οικογένειας απολαμβάνουν να περνούν τον ελεύθερο χρόνο τους με τα άλλα μέλη.	1	2	3	4	5
10. Οι γονείς και τα παιδιά συζητάνε μαζί την τιμωρία.	1	2	3	4	5
11. Τα μέλη της οικογένειας αισθάνονται πολύ κοντά μεταξύ τους.	1	2	3	4	5
12. Τα παιδιά παίρνουν τις αποφάσεις στην οικογένειά μου.	1	2	3	4	5
13. Όταν η οικογένεια συγκεντρώνεται για δραστηριότητες, όλοι είναι παρόντες.	1	2	3	4	5
14. Οι κανόνες αλλάζουν στην οικογένειά μου.	1	2	3	4	5
15. Μπορούμε εύκολα να σκεφτούμε εύκολα πράγματα που θα μπορούσαμε να κάνουμε ως οικογένεια.	1	2	3	4	5
16. Ανταλλάσσουμε οικιακές υπευθυνότητες αναμεταξύ μας.	1	2	3	4	5
17. Τα μέλη της οικογένειας συμβουλευόμαστε άλλα μέλη για τις αποφάσεις τους.	1	2	3	4	5
18. Είναι δύσκολο να αναγνωρίσω τον/τους αρχηγό/αρχηγούς της οικογένειάς μου.	1	2	3	4	5
19. Η ενότητα της οικογένειας είναι πολύ σημαντική.	1	2	3	4	5
20. Είναι πολύ δύσκολο να καταλάβω ποιός κάνει ποιές οικιακές δουλειές στο σπίτι.	1	2	3	4	5

Appendix F. Parent-Adolescent Communication Scale (PACS)

Παρακαλώ όπως κυκλώσετε την απάντηση που χαρακτηρίζει καλύτερα την επικοινωνία μεταξύ εσάς και της ΜΗΤΕΡΑ σας.

1 = Διαφωνώ απόλυτα

2 = Διαφωνώ

3 = Συμφωνώ

4 = Συμφωνώ απόλυτα

1. Μπορώ να συζητήσω τα πιστεύω μου με τη μητέρα χωρίς να αισθάνομαι συγκρατημένος/η ή ντροπή.	1	2	3	4
2. Μερικές φορές δυσκολεύομαι να πιστέψω όσα μου λέει η μητέρα μου.	1	2	3	4
3. Η μητέρα μου είναι πάντα καλός ακροατής.	1	2	3	4
4. Μερικές φορές φοβάμαι να ζητήσω τι θέλω από τη μητέρα μου.	1	2	3	4
5. Η μητέρα μου έχει μια τάση να μου λέει πράγματα τα οποία θα ήταν καλύτερα να μη λέγονταν.	1	2	3	4
6. Η μητέρα μου μπορεί να αναγνωρίσει πώς αισθάνομαι χωρίς να ρωτήσει.	1	2	3	4
7. Είμαι πολύ ικανοποιημένος/η για το πώς επικοινωνούμε εγώ και η μητέρα μου.	1	2	3	4
8. Εάν είμαι σε μπελάδες, θα μπορούσα να το πω στη μητέρα μου.	1	2	3	4
9. Δείχνω ανοιχτά την τρυφερότητά μου στη μητέρα μου.	1	2	3	4
10. Όταν έχουμε ένα πρόβλημα, συχνά διατηρώ μια σιωπηλή στάση προς τη μητέρα μου.	1	2	3	4
11. Είμαι πολύ προσεχτικός/ή για το τι θα πω στη μητέρα μου.	1	2	3	4
12. Όταν μιλάω στη μητέρα μου, έχω μια τάση να λέω πράγματα που θα ήταν καλύτερα να μην έλεγα.	1	2	3	4
13. Όταν ρωτάω ερωτήσεις, η μητέρα μου μου απαντάει με ειλικρίνεια.	1	2	3	4
14. Η μητέρα μου προσπαθεί να καταλάβει τη δική μου προοπτική.	1	2	3	4
15. Υπάρχουν θέματα τα οποία αποφεύγω να συζητήσω με τη μητέρα μου.	1	2	3	4
16. Το βρίσκω εύκολο να συζητήσω προβλήματα με τη μητέρα μου.	1	2	3	4
17. Είναι πολύ εύκολο για εμένα να εκφράσω όλα τα πραγματικά μου συναισθήματα στη μητέρα μου.	1	2	3	4
18. Η μητέρα μου με ενοχλεί/ρωτάει.	1	2	3	4
19. Η μητέρα μου μερικές φορές με προσβάλει όταν είναι θυμωμένη μαζί μου.	1	2	3	4
20. Δε νομίζω ότι μπορώ να πω στη μητέρα μου για το πώς πραγματικά αισθάνομαι για κάποια πράγματα.	1	2	3	4

Appendix G. Parent Authority Questionnaire (PAQ)

Παρακαλώ όπως κυκλώσετε την απάντηση που χαρακτηρίζει καλύτερα την επικοινωνία μεταξύ εσάς και τους γονείς σας.

1 = Διαφωνώ απόλυτα

2 = Διαφωνώ

3 = Ούτε διαφωνώ, ούτε συμφωνώ

4 = Συμφωνώ

5 = Συμφωνώ απόλυτα

1. Καθώς μεγάλωνα, οι γονείς ένιωθαν πως σε ένα καλά διοικούμενο σπίτι θα πρέπει να περνά τόσο αυτό που θέλουν τα παιδιά όσο συχνά και των γονέων.	1	2	3	4	5
2. Ακόμα και εάν τα παιδιά δε συμφωνούσαν μαζί τους, οι γονείς ένιωθαν πως για το καλό μας έπρεπε να συμμορφωθούμε με αυτό που πίστευαν πως ήταν σωστό.	1	2	3	4	5
3. Όποτε οι γονείς μου μού έλεγε να κάνω κάτι καθώς μεγάλωνα, ανέμενε να το κάνω αμέσως χωρίς επιπλέον ερωτήσεις.	1	2	3	4	5
4. Καθώς μεγάλωνα, οποιοσδήποτε κανόνας εφαρμοζόταν στην οικογένεια, οι γονείς συζητούσαν το σκεπτικό πίσω από αυτόν μαζί με τα παιδιά.	1	2	3	4	5
5. Οι γονείς πάντοτε ενθάρρυναν τη συζήτηση όταν ένιωθα πως οι κανόνες και περιορισμοί ήταν παράλογοι.	1	2	3	4	5
6. Οι γονείς πίστευαν πάντα πως τα παιδιά έχουν ανάγκη να νιώσουν ελεύθερα να αποφασίσουν και να κάνουν αυτό που θέλουν, ακόμα και αν αυτό δε συμφωνούσε με το τι ήθελαν.	1	2	3	4	5
7. Καθώς μεγάλωνα, οι γονείς μου δεν επέτρεπαν να αμφισβητήσω τις αποφάσεις που είχαν πάρει.	1	2	3	4	5
8. Καθώς μεγάλωνα, οι γονείς μου καθοδηγούσαν τις δραστηριότητες και αποφάσεις των παιδιών στην οικογένεια μέσω αιτιολογίας και πειθαρχίας.	1	2	3	4	5
9. Οι γονείς πάντοτε ένιωθαν ότι η χρήση περισσότερης πίεσης από τους γονείς οδηγούσε τα παιδιά να συμπεριφέρονται όπως θα έπρεπε.	1	2	3	4	5
10. Καθώς μεγάλωνα, οι γονείς μου δεν ένιωθαν ότι χρειαζόταν να υπακούσω σε κανονισμούς συμπεριφοράς απλά επειδή κάποιος με εξουσία τους εφάρμοζε.	1	2	3	4	5
11. Καθώς μεγάλωνα, ήξερα τι περίμεναν οι γονείς μου από εμένα μέσα στην οικογένεια, αλλά παράλληλα ένιωθα ελεύθερος/η να συζητήσω αυτές τις προσδοκίες εάν ήταν παράλογες.	1	2	3	4	5
12. Οι γονείς μου ένιωθαν πως οι σοφοί γονείς διδάσκουν στα παιδιά τους από πολύ νωρίς για το ποιο είναι το αφεντικό στην οικογένεια.	1	2	3	4	5
13. Καθώς μεγάλωνα, οι γονείς μου σπάνια μου έδιναν καθοδήγηση και προσδοκίες για τη συμπεριφορά μου.	1	2	3	4	5
14. Τις περισσότερες φορές καθώς μεγάλωνα, οι γονείς μου έκαναν ό,τι ζητούσαν τα παιδιά στην οικογένεια όσο αφορά τις οικογενειακές αποφάσεις.	1	2	3	4	5
15. Καθώς τα παιδιά στην οικογένεια μεγάλωναν, οι γονείς μου συνεχώς έδιναν οδηγίες και καθοδήγηση με λογικό και αντικειμενικό τρόπο.	1	2	3	4	5
16. Καθώς μεγάλωνα, οι γονείς μου ήταν πολύ ενοχλημένοι εάν προσπαθούσα να διαφωνήσω μαζί τους.	1	2	3	4	5
17. Οι γονείς μου αισθάνονται πως τα περισσότερα προβλήματα στην κοινωνία θα λύνονταν εάν οι γονείς δεν περιορίζαν τις δραστηριότητες, αποφάσεις και επιθυμίες των παιδιών τους καθώς μεγάλωναν.	1	2	3	4	5
18. Καθώς μεγάλωνα, οι γονείς μου μου έδιναν να καταλάβω ποιές συμπεριφορές ανέμενε από εμένα και εάν δεν ανταποκρινόμουν σε αυτές, με τιμωρούσαν.	1	2	3	4	5

19. Καθώς μεγάλωνα, οι γονείς μου μου επέτρεπαν να αποφασίσω για πράγματα που με αφορούσαν χωρίς καθοδήγηση από αυτούς.	1	2	3	4	5
20. Καθώς μεγάλωνα, οι γονείς μου λάμβαναν υπόψη τη γνώμη των παιδιών όταν παίρνονταν οικογενειακές αποφάσεις, αλλά δεν θα αποφάσιζαν κάτι επειδή απλά τα παιδιά το ζήτησαν.	1	2	3	4	5
21. Οι γονείς μου δεν θεωρούσαν τον εαυτό τους ως το υπεύθυνο άτομο για καθοδήγηση και επίβλεψη της συμπεριφοράς μου καθώς μεγάλωνα.	1	2	3	4	5
22. Καθώς μεγάλωνα, οι γονείς μου είχαν ξεκάθαρα δεδομένα για τη συμπεριφορά των παιδιών στο σπίτι, αλλά ήταν πρόθυμοι να τα προσαρμόσουν ανάλογα με τις ανάγκες του κάθε παιδιού στην οικογένεια.	1	2	3	4	5
23. Καθώς μεγάλωνα, οι γονείς μου με καθοδηγούσαν για τη συμπεριφορά και τις δραστηριότητές μου και προσδοκούσαν να τις ακολουθήσω, αλλά πάντοτε ήταν πρόθυμοι να ακούσουν τις ανησυχίες μου και να συζητήσουν αυτή την καθοδήγηση μαζί μου.	1	2	3	4	5
24. Καθώς μεγάλωνα, οι γονείς μου μου επέτρεπαν να δημιουργώ τη δική μου άποψη πάνω σε οικογενειακά ζητήματα και γενικά μου επέτρεπαν να αποφασίζω μόνος/η για το τι θα έκανα.	1	2	3	4	5
25. Οι γονείς μου πάντοτε ένιωθαν ότι τα περισσότερα προβλήματα στην κοινωνία θα λύνονταν εάν οι γονείς αντιμετώπιζαν με αυστηρότητα και επιβλητικότητα τα παιδιά τους όταν δεν έκαναν αυτό που θα έπρεπε να κάνουν καθώς μεγάλωναν.	1	2	3	4	5
26. Καθώς μεγάλωνα, οι γονείς μου συχνά μου έλεγαν ακριβώς τι ήθελαν και πώς το ήθελαν από εμένα να το κάνω.	1	2	3	4	5
27. Καθώς μεγάλωνα, οι γονείς μου μου έδιναν καθαρή καθοδήγηση για τη συμπεριφορά και τις δραστηριότητές μου, αλλά ήταν επίσης κατανοητικοί όταν διαφωνούσα μαζί τους.	1	2	3	4	5
28. Καθώς μεγάλωνα, οι γονείς μου δεν καθοδηγούσαν τη συμπεριφορά, τις δραστηριότητες και επιθυμίες των παιδιών στην οικογένεια.	1	2	3	4	5
29. Καθώς μεγάλωνα, ήξερα τι ανέμεναν οι γονείς μου από εμένα μέσα στην οικογένεια και επέμεναν να συμμορφωθώ σε αυτές τις απαιτήσεις από σεβασμό προς την εξουσία τους.	1	2	3	4	5
30. Καθώς μεγάλωνα, εάν οι γονείς μου έπαιρναν μια απόφαση για την οικογένεια η οποία με πλήγωνε, ήταν πρόθυμοι να συζητήσουν και να παραδεχτούν εάν είχαν κάνει κάτι λάθος.	1	2	3	4	5

Appendix H. Parental Bonding Instrument (PBI-II)

Παρακαλώ όπως κυκλώσετε την απάντηση που χαρακτηρίζει καλύτερα την επικοινωνία μεταξύ εσάς και τη ΜΗΤΕΡΑ σας καθώς μεγαλώνετε.

1 = Απίθανο

2 = Μάλλον απίθανο

3 = Πιθανόν

4 = Πολύ πιθανόν

1. Μου μιλάει με μια ζεστή και φιλική φωνή.	1	2	3	4
2. Δεν με βοήθησε όσο θα ήθελα.	1	2	3	4
3. Με άφησε να κάνω τα πράγματα που μου άρεσε να κάνω.	1	2	3	4
4. Μου φαινόταν συναισθηματικά παγωμένη απέναντι μου.	1	2	3	4
5. Φαινόταν να καταλαμβαίνει τα προβλήματα και τις ανησυχίες μου.	1	2	3	4
6. Ήταν στοργική απέναντι μου.	1	2	3	4
7. Της άρεσε να κάνω τις δικές μου επιλογές.	1	2	3	4
8. Δεν ήθελε να μεγαλώσω.	1	2	3	4
9. Προσπαθούσε να ελέγξει ότι έκανα.	1	2	3	4
10. Εισέβαλε στην ιδιωτική μου ζωή.	1	2	3	4
11. Απολάμβανε να συζητάει μαζί μου.	1	2	3	4
12. Συχνά μου χαμογελούσε.	1	2	3	4
13. Έτεινε να με νταντεύει.	1	2	3	4
14. Δεν φαινόταν να καταλαμβαίνει τι χρειαζόμουν ή ήθελα.	1	2	3	4
15. Με άφηγε να επιλέγω πράγματα για εμένα.	1	2	3	4
16. Με έκανε να αισθάνομαι πως δεν ήμουν επιθυμητός/ή.	1	2	3	4
17. Με έκανε να νιώθω καλύτερα όταν ήμουν αναστατωμένος/η.	1	2	3	4
18. Δεν μιλούσε πάρα πολύ μαζί μου.	1	2	3	4
19. Με έκανε να αισθάνομαι εξαρτημένος/η από εκείνη.	1	2	3	4
20. Ένιωθα πως δεν μπορούσα να φροντίσω τον εαυτό μου, εκτός και εάν ήταν δίπλα μου.	1	2	3	4
21. Μου έδινε αρκετή ελευθερία όση θα ήθελα.	1	2	3	4
22. Με άφηγε να βγαίνω έξω όσο θα ήθελα.	1	2	3	4
23. Ήταν υπερπροστατευτική μαζί μου.	1	2	3	4
24. Δεν με επαινούσε.	1	2	3	4
25. Με άφηγε να ντύνομαι όπως ήθελα.	1	2	3	4

Appendix I. Reynold's Adolescent Depression Scale (RADS)

Κυκλώστε την απάντηση που σας χαρακτηρίζει καλύτερα:

1 = Ποτέ

2 = Σπάνια

3 = Μερικές φορές

4 = Πάντα

1. Νιώθω χαρούμενος/η.	1	2	3	4
2. Ανησυχώ για το σχολείο.	1	2	3	4
3. Νιώθω μόνος/η.	1	2	3	4
4. Νιώθω πως οι γονείς μου δεν με συμπαθούν.	1	2	3	4
5. Νιώθω σημαντικός/ή.	1	2	3	4
6. Νιώθω ότι πρέπει να κρύβομαι από ανθρώπους.	1	2	3	4
7. Νιώθω λυπημένος/η.	1	2	3	4
8. Νιώθω πως θέλω να κλάψω.	1	2	3	4
9. Νιώθω πως κανένας δεν νοιάζεται για εμένα.	1	2	3	4
10. Νιώθω πως περνά καλά με άλλους μαθητές.	1	2	3	4
11. Νιώθω άρρωστος/η.	1	2	3	4
12. Νιώθω πως με αγαπούν.	1	2	3	4
13. Νιώθω ότι θέλω να φύγω μακριά.	1	2	3	4
14. Νιώθω ότι θέλω να αυτοτραυματιστώ.	1	2	3	4
15. Νομίζω πως δεν με συμπαθούν άλλοι μαθητές.	1	2	3	4
16. Νιώθω αναστατωμένος/η.	1	2	3	4
17. Νιώθω πως η ζωή είναι άδικη.	1	2	3	4
18. Νιώθω κουρασμένος/η.	1	2	3	4
19. Νιώθω ότι είμαι κακός/ιά.	1	2	3	4
20. Νιώθω πως δεν είμαι αρκετά καλός/ή.	1	2	3	4
21. Νιώθω λύπη για τον εαυτό μου.	1	2	3	4
22. Νιώθω θυμωμένος/η για πράγματα.	1	2	3	4
23. Νιώθω ότι θέλω να μιλήσω σε άλλους μαθητές.	1	2	3	4

24. Έχω δυσκολία να κοιμηθώ.	1	2	3	4
25. Θέλω να περνά καλά.	1	2	3	4
26. Νιώθω ανησυχία.	1	2	3	4
27. Έχω στομαχόπονους.	1	2	3	4
28. Νιώθω να βαριέμαι.	1	2	3	4
29. Νιώθω πως μπορώ να γευματίσω.	1	2	3	4
30. Νιώθω πως ότι και αν κάνω δεν βοηθά πια.	1	2	3	4

Appendix J. Screen for Child Anxiety Related Disorders (SCARED)

Παρακαλώ όπως κυκλώσετε την απάντηση που σας χαρακτηρίζει καλύτερα όσο αφορά τους τελευταίους 3 μήνες.

1 = Λάθος ή Σπάνια

2 = Μερικές φορές

3 = Αλήθεια ή τις πλείστες φορές

1. Όταν αισθάνομαι φοβισμένος/η είναι πολύ δύσκολο να αναπνεύσω.	1	2	3
2. Έχω πονοκεφάλους όταν είμαι στο σχολείο.	1	2	3
3. Δεν μου αρέσει να βρίσκομαι με άτομα τα οποία δεν γνωρίζω καλά.	1	2	3
4. Φοβάμαι όταν κοιμάμαι μακριά από το σπίτι.	1	2	3
5. Ανησυχώ για το εάν αρέσω σε άλλα άτομα.	1	2	3
6. Όταν νιώθω φοβισμένος/η, αισθάνομαι πως θα λιποθυμήσω.	1	2	3
7. Είμαι αγχωμένος/η.	1	2	3
8. Ακολουθώ τους γονείς μου όπου πηγαίνουν.	1	2	3
9. Οι άνθρωποι μου λένε πως δείχνω αγχωμένος/η.	1	2	3
10. Νιώθω άγχος όταν βρίσκομαι με άτομα που δεν γνωρίζω καλά.	1	2	3
11. Έχω στομαχόπονους όταν είμαι στο σχολείο.	1	2	3
12. Όταν φοβηθώ, νιώθω πως θα τρελαθώ.	1	2	3
13. Ανησυχώ όταν κοιμάμαι μόνος/η.	1	2	3
14. Ανησυχώ στην ιδέα να είμαι καλός/ή όσο άλλα παιδιά.	1	2	3
15. Όταν φοβηθώ, νιώθω πως τα πράγματα γύρω μου δεν είναι αληθινά.	1	2	3
16. Έχω εφιάλτες πως κάτι κακό συμβαίνει στους γονείς μου.	1	2	3
17. Ανησυχώ στην ιδέα πως θα πάω σχολείο.	1	2	3
18. Όταν φοβηθώ, η καρδιά μου κτυπάει γρήγορα.	1	2	3
19. Τρέμω.	1	2	3
20. Έχω εφιάλτες ότι κάτι κακό θα μου συμβεί.	1	2	3
21. Ανησυχώ για το εάν τα πράγματα θα πάνε καλά για εμένα.	1	2	3
22. Όταν φοβηθώ, ιδρώνω πολύ.	1	2	3
23. Ανησυχώ.	1	2	3

24. Νιώθω πραγματικά φοβισμένος/η χωρίς κανένα λόγο.	1	2	3
25. Φοβάμαι να μένω μόνος/η στο σπίτι.	1	2	3
26. Είναι πολύ δύσκολο για εμένα να μιλήσω με άτομα που δεν ξέρω καλά.	1	2	3
27. Όταν φοβηθώ, νιώθω πως πνίγομαι.	1	2	3
28. Άτομα μου λένε πως ανησυχώ πάρα πολύ.	1	2	3
29. Δε μου αρέσει να είμαι μακριά από την οικογένειά μου.	1	2	3
30. Φοβάμαι στην ιδέα να έχω κρίσεις άγχους (πανικού).	1	2	3
31. Ανησυχώ ότι κάτι κακό θα συμβεί στους γονείς μου.	1	2	3
32. Είμαι ντροπαλός/ή όταν βρίσκομαι με άτομα που δεν γνωρίζω καλά.	1	2	3
33. Ανησυχώ για το τι θα συμβεί στο μέλλον.	1	2	3
34. Όταν φοβηθώ, νιώθω πως θα κάνω εμετό.	1	2	3
35. Ανησυχώ για το πόσο καλά κάνω τα πράγματα.	1	2	3
36. Φοβάμαι να πάω σχολείο.	1	2	3
37. Ανησυχώ για πράγματα που έχουν ήδη συμβεί.	1	2	3
38. Όταν φοβηθώ, νιώθω να ζαλίζομαι.	1	2	3
39. Νιώθω αγχωμένος/η όταν είμαι με άλλα παιδιά ή ενήλικες και πρέπει να κάνω κάτι καθώς με παρακολουθούν (για παράδειγμα: να διαβάσω δυνατά, να μιλήσω, να παίξω ένα παιχνίδι ή άθλημα).	1	2	3
40. Νιώθω αγχωμένος/η, όταν πηγαίνω σε πάρτυ, χορούς, ή σε άλλο μέρος όπου θα είναι άτομα που δεν ξέρω καλά.	1	2	3
41. Είμαι ντροπαλός/η.	1	2	3

Research Material Phase II

Appendix K. Demographic characteristics - parent

A/A: _____

ΟΙΚΟΓΕΝΕΙΑΚΕΣ ΣΧΕΣΕΙΣ ΚΑΙ ΓΟΝΙΚΗ ΕΓΓΥΤΗΤΑ
ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ ΓΟΝΕΑ

Η παρούσα έρευνα έχει ως σκοπό να μελετήσει τη γονική εγγύτητα στη ζωή των εφήβων (τρόποι επικοινωνίας και σύνδεσης), με σκοπό να κατανοηθεί καλύτερα η σχέση γονέα και παιδιού μέσα στην οικογένεια. Τα δεδομένα που θα συλλεχθούν θα χρησιμοποιηθούν μόνο για σκοπούς της συγκεκριμένης έρευνας και θα ληφθούν όλα τα απαραίτητα μέτρα διαφύλαξης των δεδομένων. Η συμμετοχή στην έρευνα είναι εθελοντική και οι συμμετέχοντες μπορούν να αποχωρήσουν οποιαδήποτε στιγμή από την έρευνα χωρίς συνέπειες. Οι πληροφορίες παρεméνουν εμπιστευτικές υπό την ευθύνη του ερευνητή και θα διατηρηθεί ανωνυμία συμμετεχόντων.

ΜΕΡΟΣ Α:**Παρακαλώ συμπληρώστε τις παρακάτω ερωτήσεις:**

10. Ηλικία: _____

11. Φύλο: _____

12. Εθνικότητα: _____

13. Επίπεδο Εκπαίδευσης: _____

14. Βάρος: _____ kg Ύψος: _____ cm

15. Ποιά είναι η οικογενειακή σας κατάσταση;

Α) Μόνος/η, δεν παντρεύτηκα ποτέ

☐

Β) Σε σχέση

☐

Γ) Παντρεμένος/η

☐

Δ) Σε διάσταση

☐

Ε) Χωρισμένος/η

☐

Ζ) Χήρος/α

☐

16. Στο παρόν στάδιο, δουλεύετε;

- A) Δε δουλεύω.
- B) Δουλεύω σε μερικής απασχόλησης ωράριο.
- Γ) Δουλεύω σε πλήρης απασχόλησης ωράριο.

17. Παρακαλώ όπως σημειώσετε σε ποιο σημείο της κλίμακας θα κατατάσσατε την οικογένειά σας οικονομικά:

1.....2.....3.....4.....5.....6.....7.....8.....9.....10

Φτωχός

Πλούσιος

18. Κατά την άποψή σας, μήπως υπήρξαν οποιαδήποτε γεγονότα τα οποία μπορεί να επηρέασαν αρνητικά τη συμπεριφορά του παιδιού σας;

Γεγονότα	Σημειώστε με √ αυτά που συνέβησαν.	Χρονική Περίοδος	Θεωρείτε πως επηρέασαν αρνητικά το παιδί σας;
(α) Μετακόμιση σε άλλο σπίτι.			
(β) Μετακίνηση σε άλλο σχολείο.			
(γ) Επανάληψη χρονιάς στο σχολείο.			
(δ) Αρρώστεια στην οικογένεια.			
(ε) Θάνατος στην οικογένεια.			
(ζ) Διαζύγιο στην οικογένεια.			
(η) Αλλαγές στο πρόγραμμα του γονέα.			
(θ) Αδέλφια έφυγαν από το σπίτι.			
(ι) Νέο άτομο εντάχθηκε στην οικογένεια.			

19. Κατά την άποψή σας, μήπως το παιδί σας αντιμετωπίζει οποιεσδήποτε δυσκολίες στις σχέσεις του με άλλα άτομα;

- 0)ΝΑΙ
- 1)ΟΧΙ

20. Έχετε οποιεσδήποτε ανησυχίες μήπως το παιδί σας είναι εξαρτημένο από τοξικές ουσίες (ναρκωτικά ή/και

αλκοόλ);

0)ΝΑΙ

1)ΟΧΙ

21. Αντιμετωπίζει το παιδί σας κάποιο πρόβλημα υγείας;

0)ΝΑΙ

1)ΟΧΙ

12.α. Εάν ναι, τι είδους πρόβλημα; Σημειώστε: _____

13. Μήπως το παιδί σας αντιμετωπίζει προβλήματα ύπνου;

0)ΝΑΙ

1)ΟΧΙ

14. Υπήρξαν οποιεσδήποτε δυσκολίες κατά τη διάρκεια ή μετά την εγκυμοσύνη (όσο αφορά τη σύζυγο);

0)ΝΑΙ

1)ΟΧΙ

15. Μήπως το παιδί σας αντιμετωπίζει δυσκολίες στη μάθηση (π.χ: μαθησιακές δυσκολίες);

0)ΝΑΙ

1)ΟΧΙ

15.α. Εάν ναι, τι είδους δυσκολίες; Σημειώστε: _____

16. Μήπως το παιδί σας λαμβάνει κάποιου είδους θεραπείας (σωματική ή ψυχική)

0)ΝΑΙ

1)ΟΧΙ

17.α. Εάν ναι, τι είδους και ποιά η διάρκεια;

Σημειώστε: _____

Appendix L. Parent Authority Questionnaire (parent's edition) – PAQ-R

Παρακαλώ όπως κυκλώσετε την απάντηση που σας χαρακτηρίζει καλύτερα.

1 = Διαφωνώ απόλυτα

2 = Διαφωνώ

3 = Ούτε διαφωνώ, ούτε συμφωνώ

4 = Συμφωνώ

5 = Συμφωνώ απόλυτα

1. Σε ένα κατάλληλο για την οικογένεια σπίτι, τα παιδιά πρέπει να έχουν το δικό τους χώρο όπως και οι γονείς.	1	2	3	4	5
2. Για το καλό των παιδιών, απαιτώ να συμμορφωθούν με αυτό που πιστεύω είναι σωστό, ακόμα και εάν τα παιδιά δε συμφωνούν.	1	2	3	4	5
3. Όταν ζητάω από τα παιδιά μου να κάνουν κάτι, αναμένω να το κάνουν αμέσως χωρίς επιπλέον ερωτήσεις.	1	2	3	4	5
4. Όταν κανόνες εφαρμόζονται στην οικογένεια, συζητώ το σκεπτικό πίσω από αυτούς μαζί τα παιδιά.	1	2	3	4	5
5. Πάντοτε ενθαρρύνω τη συζήτηση, όταν τα παιδιά αισθανθούν πως οι κανόνες και οι περιορισμοί είναι παράλογοι.	1	2	3	4	5
6. Τα παιδιά χρειάζονται να νιώθουν ελεύθερα να αποφασίσουν και να κάνουν ότι θέλουν, ακόμα και αν αυτό δε συμφωνεί με το τι θέλουν οι γονείς.	1	2	3	4	5
7. Δεν επιτρέπω στα παιδιά μου να αμφισβητούν τις αποφάσεις που έχω πάρει.	1	2	3	4	5
8. Καθοδηγώ τις δραστηριότητες και αποφάσεις των παιδιών στην οικογένεια μέσω συζήτησης και χρησιμοποιώντας ανταμοιβές ή τιμωρίες.	1	2	3	4	5
9. Άλλοι γονείς πρέπει να ασκούν περισσότερη πίεση στα παιδιά τους για να συμπεριφέρονται όπως θα έπρεπε.	1	2	3	4	5
10. Τα παιδιά μου δεν χρειάζεται να υπακούν σε κανονισμούς συμπεριφοράς απλά επειδή κάποιος με εξουσία τους επέβαλε.	1	2	3	4	5
11. Τα παιδιά μου γνωρίζουν τι αναμένω από αυτά μέσα στην οικογένεια, αλλά παράλληλα νιώθουν ελεύθερα να συζητήσουν εάν οι προσδοκίες μου είναι παράλογες.	1	2	3	4	5
12. Οι σοφοί γονείς πρέπει να διδάσκουν στα παιδιά τους από πολύ νωρίς για το ποιο είναι το αφεντικό στην οικογένεια.	1	2	3	4	5
13. Συνήθως δεν θέτω αυστηρή καθοδήγηση ως προς τη συμπεριφορά των παιδιών μου.	1	2	3	4	5
14. Τις περισσότερες φορές κάνω ότι ζητήσουν τα παιδιά στην οικογένεια όσο αφορά οικογενειακές αποφάσεις.	1	2	3	4	5
15. Λέω στα παιδιά μου τι πρέπει να κάνουν, αλλά παράλληλα εξηγώ τους λόγους για τους οποίους θα πρέπει να το κάνουν.	1	2	3	4	5
16. Ενοχλούμε πολύ εάν τα παιδιά μου προσπαθούν να διαφωνήσουν μαζί μου.	1	2	3	4	5
17. Τα περισσότερα προβλήματα στην κοινωνία θα λύνονταν εάν οι γονείς άφηναν τα παιδιά τους να επιλέξουν τις δραστηριότητες, αποφάσεις και επιθυμίες τους καθώς μεγαλώνουν.	1	2	3	4	5
18. Δίνω στα παιδιά μου να καταλάβουν ποιές συμπεριφορές αναμένω και εάν δεν ακολουθήσουν τους κανόνες τότε τιμωρούνται.	1	2	3	4	5
19. Επιτρέπω στα παιδιά μου να αποφασίσουν για πράγματα που τα αφορούν χωρίς πολλή καθοδήγηση από εμένα.	1	2	3	4	5
20. Λαμβάνω υπόψη τη γνώμη των παιδιών μου όταν παίρνω οικογενειακές αποφάσεις, αλλά δεν αποφασίζω κάτι επειδή απλά τα παιδιά το ζήτησαν.	1	2	3	4	5
21. Δεν θεωρώ τον εαυτό μου υπεύθυνο άτομο στο να λέω στα παιδιά μου τι να κάνουν.	1	2	3	4	5
22. Έχω ξεκάθαρα δεδομένα για τη συμπεριφορά των παιδιών μου, αλλά	1	2	3	4	5

είμαι πρόθυμος/η να τα προσαρμόσω ανάλογα με τις ανάγκες του κάθε παιδιού στην οικογένεια.					
23. Προσδοκώ από τα παιδιά μου να ακολουθήσουν τις οδηγίες μου, αλλά πάντοτε είμαι πρόθυμος/η να ακούσω τις ανησυχίες τους και να συζητήσω τους κανόνες μαζί τους.	1	2	3	4	5
24. Επιτρέπω στα παιδιά μου να δημιουργήσουν τη δική τους άποψη όσο αφορά οικογενειακά ζητήματα και τα αφήνω να αποφασίζουν και αυτά.	1	2	3	4	5
25. Τα περισσότερα προβλήματα στην κοινωνία θα λύνονταν εάν οι γονείς αντιμετώπιζαν με αυστηρότητα τα παιδιά τους όταν δεν έκαναν αυτό που θα έπρεπε να κάνουν.	1	2	3	4	5
26. Συχνά λέω στα παιδιά μου ακριβώς τι αναμένω να κάνουν και πώς να το κάνουν.	1	2	3	4	5
27. Δίνω ξεκάθαρη καθοδήγηση στα παιδιά μου, αλλά επίσης κατανοώ όταν διαφωνούν μαζί μου.	1	2	3	4	5
28. Δεν καθοδηγώ τη συμπεριφορά, τις δραστηριότητες και επιθυμίες των παιδιών μου.	1	2	3	4	5
29. Τα παιδιά μου γνωρίζουν τι αναμένω από αυτά και συμμορφώνονται σε αυτές τις απαιτήσεις απλά απο σεβασμό προς την εξουσία μου.	1	2	3	4	5
30. Εάν πάρω μια απόφαση για τα παιδιά μου η οποία πληγώνει, είμαι πρόθυμος/η να παραδεχτώ ότι έχω κάνει κάτι λάθος.	1	2	3	4	5

Appendix M. Parent-Adolescent Communication Scale (PACS)

Παρακαλώ όπως κυκλώσετε την απάντηση που χαρακτηρίζει καλύτερα την επικοινωνία μεταξύ εσάς και το παιδιού σας.

1 = Διαφωνώ απόλυτα

2 = Διαφωνώ

3 = Συμφωνώ

4 = Συμφωνώ απόλυτα

1. Μπορώ να συζητήσω τα πιστεύω μου με το παιδί μου χωρίς να αισθάνομαι συγκρατημένος/η ή ντροπή.	1	2	3	4
2. Μερικές φορές έχω δυσκολία να πιστέψω όσα μου λέει το παιδί μου.	1	2	3	4
3. Το παιδί μου είναι πάντα καλός ακροατής.	1	2	3	4
4. Μερικές φορές φοβάμαι να ρωτήσω το παιδί μου για το τι θέλω.	1	2	3	4
5. Το παιδί μου έχει μια τάση να μου λέει πράγματα τα οποία θα ήταν καλύτερα να μην έλεγε.	1	2	3	4
6. Το παιδί μου μπορεί να αναγνωρίσει πώς αισθάνομαι χωρίς να ρωτήσει.	1	2	3	4
7. Είμαι πολύ ικανοποιημένος/η για το πώς επικοινωνούμε εγώ και το παιδί μου.	1	2	3	4
8. Εάν είμαι σε μπελάδες, θα μπορούσα να το πω στο παιδί μου.	1	2	3	4
9. Δείχνω ανοιχτά τη τρυφερότητά μου στο παιδί μου.	1	2	3	4
10. Όταν έχουμε ένα πρόβλημα, συχνά διατηρώ μια σιωπηλή στάση προς το παιδί μου.	1	2	3	4
11. Είμαι πολύ προσεχτικός/η για το τι θα πω στο παιδί μου.	1	2	3	4
12. Όταν μιλάω στο παιδί μου, έχω μια τάση να λέω πράγματα που θα ήταν καλύτερα να μην πω.	1	2	3	4
13. Όταν ρωτάω ερωτήσεις, το παιδί μου απαντάει με ειλικρίνεια.	1	2	3	4
14. Το παιδί μου προσπαθεί να καταλάβει την οπτική μου.	1	2	3	4
15. Υπάρχουν θέματα τα οποία αποφεύγω να συζητήσω με το παιδί μου.	1	2	3	4
16. Το βρίσκω εύκολο να συζητήσω προβλήματα με το παιδί μου.	1	2	3	4
17. Είναι πολύ εύκολο για εμένα να εκφράσω όλα μου τα συναισθήματα στο παιδί μου.	1	2	3	4
18. Το παιδί μου με ενοχλεί/ρωτάει.	1	2	3	4
19. Το παιδί μου μερικές φορές με προσβάλλει όταν είναι θυμωμένο μαζί μου.	1	2	3	4
20. Δε νομίζω να μπορώ να πω στο παιδί μου για το πώς αισθάνομαι για κάποια πράγματα.	1	2	3	4

Appendix N. Evaluation of Quality of Seminars**ΑΞΙΟΛΟΓΗΣΗ ΨΥΧΟΕΚΠΑΙΔΕΥΤΙΚΩΝ ΣΕΜΙΝΑΡΙΩΝ**

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| (1) Δυνατότητα έκφρασης προσωπικών εμπειριών. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (2) Το εκπαιδευτικό υλικό ήταν οργανωμένο στις
διάφορες υποενότητες. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (3) Το εκπαιδευτικό υλικό ήταν κατανοητό. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (4) Τα σεμινάρια παρείχαν ασφάλεια και σοβαρότητα
προς τους συμμετέχοντες. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (5) Δυνατότητα γνωριμίας με άλλους γονείς. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (6) Δυνατότητα συζήτησης με ομάδα. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

**ΕΥΧΑΡΙΣΤΩ ΠΟΛΥ ΓΙΑ ΤΗΝ ΠΑΡΟΥΣΙΑ ΚΑΙ ΤΗ ΒΟΗΘΕΙΑ ΣΑΣ ΓΙΑ ΤΗΝ ΥΛΟΠΟΙΗΣΗ
ΤΩΝ ΣΕΜΙΝΑΡΙΩΝ !!!**