Anorexia Nervosa and Parental Bonding: The Contribution of Parent—Grandparent Relationships to Eating Disorder Psychopathology

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The present study adopted an intergenerational approach in examining the association between parental bonding and anorexia nervosa. Forty-three anorexic participants and 33 nonclinical comparison participants completed eating disorder questionnaires and the Parental Bonding Instrument (PBI). The participant’s parents also completed the PBI. The anorexic participants perceived both parents as less caring and fathers as more controlling than nonclinical participants. Among anorexic participants, mother control and father care were associated with symptom severity. Intergenerational effects were present. Among anorexic participants, maternal grandmother care was associated with eating disorder psychopathology. The present findings suggest that parental characteristics of grandparents might play a role in the development of eating disorders in granddaughters. © 2008 Wiley Periodicals, Inc. J Clin Psychol 64: 703-716, 2008.

Keywords: anorexia nervosa; intergenerational; parenting effects; parental bonding

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Anorexia nervosa is a serious psychiatric disorder characterized by an intense fear of weight gain, significant weight loss, and distorted body-self image. Its etiology is supposed to be multidetermined by developmental, sociocultural, and biological factors. Family studies demonstrated greater lifetime prevalence of eating disorders among relatives of individuals with an eating disorder (Strober, Freeman, Laspert, Diamond, & Kaye, 2000). Although there is evidence from twin studies that genetic factors play an important role (Wade, Bulik, Neale, & Kendler, 2000), not all the variance can be explained by biological processes and obviously some environmental factors contribute to this family pattern. Among these factors, parent–child relationships may be meaningful in the etiology of anorexia nervosa and may be transmitted from generation to generation.

From a psychoanalytic viewpoint, abnormal mother–daughter relationships underlie the later development of eating disorders: Bruch (1973) emphasizes the mother’s failure to provide adequate external responses to the child’s inner state, which leads to confusion between emotional experiences and biological needs. She also suggests that the obedience and conformity characteristic of the anorexics’ behavior is related to little or no encouragement of independence during the individuation and separation phase (Bruch, 1982). Later formulations in the framework of self psychology assume that anorexia nervosa, as well as other disorders of the self, are the result of a chronic disturbance in the parents’ ability to maintain an empathic attitude toward their child (Geist, 1989; Goodsit, 1985; Sands, 1991). Family therapists emphasize the role that disturbed family relationships play in the etiology and course of eating disorders. Minuchin, Rosman, and Baker (1978) identified an enmeshed, overprotective family structure, with individual boundaries, often diffuse and weak. Sours (1980) saw the typical family of the anorexic as one that superficially functions well, but enmeshes its members, is overprotective, rigid, and lacks an ability for conflict resolution.

Parker, Tupling, and Brown (1979), in an effort to describe normal parental relationships from the standpoint of the parental contribution to the parent–child bond, developed the Parental Bonding Instrument (PBI), which measures two principal dimensions: one of care for the child and a dimension of psychological control over the child. The combination of the two dimensions allows participants to be classified in one of four types of parental bonding: optimal, weak, affectionate constraint and affectionless control (Parker et al., 1979). Several studies on eating disorders designed to test psychodynamic and family theories use the PBI. Works that merged anorexia and other eating disorders indicated that individuals with eating disorders rated both parents as less caring and more controlling than nonclinical comparison participants (Calam, Waller, Slade, & Newton, 1990; De Panfilis, Rabbaglio, Rossi, Zita, & Maggini, 2003). Studies focusing on the anorexia nervosa group yielded less consistent results: Mothers were reported to be less caring compared to the nonclinical group (Bulik, Sullivan, Fear, & Pickering, 2000; Gomez, 1984; Palmer, Oppenheimer, & Marshall, 1988; Steiger, Van de Feen, Goldstein, & Leichner, 1989). To a lesser extent, anorexia nervosa participants reported their fathers to be less caring (Bulik et al., 2000; Steiger et al., 1989) or more controlling (Steiger et al., 1989) relative to the nonclinical group.

In recent years, there has been an increasing interest in the intergenerational transmission of parenting effects in fields such as harsh parenting, intimate violence, sexual abuse, parental rejection and depression, and adolescent mothers (Brook, Whitman, & Brook, 1999; Brook, Whitman, & Zheng, 2002; Chapple, 2003; Hess, Papas, & Black, 2002; Leifer, Kilbane, Jacobsen, & Grossman, 2004; Simons,
Whitbeck, Conger, & Chyi-In, 1991; Whitbeck et al., 1992). However, according to our literature review to date, no intergenerational research has been conducted on eating disorders.

The mechanisms responsible for intergenerational effects are still not clear. Some authors had proposed the attachment theory as the conceptual framework for their research, whereas others had proposed learning theories or a combination of both. The attachment theory (Ainsworth, Blehar, Walters, & Wally, 1978; Bowlby, 1973, 1988) focuses on the infant’s use of the caregiver as a source of security. Research shows that individuals with eating disorders are more likely to be insecurely attached than individuals without eating pathology (Armstrong & Roth, 1989; Broberg, Hjalmers, & Nevonen, 2001; Kenny & Hart, 1992; Orzolek-Kronner, 2002). According to the attachment theory, working models of the self, others, and self–other relationships are transmitted across generations and are responsible for the continuity of parenting behaviors. In our understanding, the parent’s experiences with their own parents’ lack of care or controlling attitude may lead to an internal representation of such relationships, which, in turn, impact the parents’ attitude toward their children. Learning theories (for example, Bandura, 1986, 1997) postulate that parental influence on next generations occurs through a process of modeling and reinforcement. In this instance, a more direct modeling process takes place as the lack of care or controlling attitude of grandparents is imitated by the parents in their relationships with their own children.

Until today, most research has focused on the comparison of parent–child relationships of eating disorders to those of a nonclinical group. A related question is how parental bonding is associated with severity of symptoms within the eating disorder group. The few studies that deal with the relationship between parental bonding and eating disorder symptoms found significant correlations between eating pathology and parental bonding style (Haudek, Rorty, & Henker, 1999; Furnham & Husain, 1999; Turner, Rose, & Cooper, 2005), but one study failed to replicate previous findings (Furnham & Adam-Saib, 2001). Clinical samples of eating disorders have not been included, which might be the reason for the inconsistent results.

The purpose of the present study was threefold. The first purpose aimed to replicate and extend previous findings comparing anorexia nervosa patients to a nonclinical group and comparing their respective parents on the PBI. The second purpose was to investigate the intergenerational transmission of parenting effects with respect to eating disorders. Our assumption was that the parental bonding style of grandparents is associated with eating disorders in their grandchildren. The third purpose of the present study was to examine the correlation between parental bonding and severity of symptoms among the anorexia nervosa diagnosed participants. This part of the study was conducted under the assumption that the parental style contributes not only to the existence of an eating disorder, but also to the degree of its severity. According to the intergenerational framework, we also inspected this relationship across generations.

To assess the severity of the disorder, two measures of eating psychopathology were used: The Eating Attitudes Test (Garner & Garfinkel, 1979; Garner, Olmsted, Bohr, & Garfinkel, 1982) is a self-report measure of the symptoms and concerns characteristic of eating disorders and is oriented toward the behavioral parameters of the disorder, and the Eating Disorder Inventory (Garner, 1991), also a self-report measure intended to tap psychological dimensions that have been postulated to be more fundamentally related to eating disorders. The inclusion of these instruments was aimed to deal with both the behavioral and personality aspects of anorexia nervosa.
The hypotheses were:

1. Anorexia nervosa participants will report their mothers and fathers to be less caring and more controlling relative to the participants in the nonclinical group.
2. A greater proportion of anorexia nervosa participants will exhibit an affectionless control parental bonding style compared to the nonclinical group.
3. Grandparents of anorexia nervosa participants will be perceived as less caring and more controlling compared to grandparents in the nonclinical group.
4. Less parental care and more parental control will be associated with greater eating disorder psychopathology in the anorexia nervosa group.
5. Less grandparental care and more grandparental control will be associated with greater eating disorders’ psychopathology in the anorexia nervosa group.

Method

Participants

The participants of the study were 43 anorexic young women, whose mean age was 21.3 years ($SD = 3.7$), their mean years of school was 12.5 ($SD = 1.8$), their mean body mass index (BMI) was 16.7 ($SD = 2.1$) with a BMI range of 11.3 to 17.4. The 36 mothers had a mean age of 49.8 years ($SD = 6.1$), and their mean years of school was 14.1 ($SD = 4.1$). The 31 fathers had a mean age of 53.5 years ($SD = 7.3$), and their mean years of school was 14.9 ($SD = 2.7$). All anorexic participants met the criteria according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV; American Psychiatric Association, 1994) for anorexia nervosa. Eighteen anorexic participants were of the restrictive type and 25 were binge eating/purging type. Five of the anorexic participants were also diagnosed with comorbid major depressive disorder. Thirty-three nonclinical young women participated, their mean age was 22.3 years ($SD = 4.5$), with mean years of school of 13.2 ($SD = 2.2$), a mean BMI of 21.2 ($SD = 2.3$), and BMI range of 18.1 to 26.5; 37. The mothers had a mean age of 50.8 years ($SD = 6.5$), with mean years of school of 15.5 ($SD = 3.6$). The 35 fathers had a mean age of 53.1 years ($SD = 7.2$), with their mean years of school of 14.8 ($SD = 3.1$). Ten mothers in the anorexia nervosa group had a history of eating disorders. The nonclinical families (parents and daughters) and the parents of the anorexic daughters did not meet DSM-IV criteria for any current psychiatric disorder. There were no significant differences between the anorexic and nonclinical groups in age and years of education of mothers, fathers, and daughters. There were no differences between anorexic participants, restrictive type, and anorexic participants, binge eating/purging type, for all the variables measured in the study except for the bulimia subscale of the Eating Disorder Inventory. The mean bulimia score of anorexics binge eating/purging type was greater ($M = 4.8$, $SD = 5.4$) than the score of anorexics restrictive type ($M = .78$, $SD = 1.3$), $t (41) = -3.5$, $p = .002$. For all the variables measured in the study, there were no differences between anorexic participants whose mothers had a history of eating disorders and those who did not.

Instruments

The Eating Attitudes Test (EAT-26; Garner & Garfinkel, 1979; Garner et al., 1982) is a well-established instrument that measures symptoms and concerns characteristic of eating disorders. It is a 26-item self-report factor analytically derived scale,
originally validated on 160 women with eating disorders and 140 female nonclinical comparison participants. It is reliable and valid, correlates highly with the original 40-items scale ($r = 0.98$; Garner et al., 1982) and screens for cases of eating disorders in both clinical and nonclinical participants. Each item is scored on a 6-point Likert scale and summed for a total score, with answers ranging from never to always. The three least frequent categories (never, rarely, and sometimes) are given a score of 0, often is scored as 1, usually is scored as 2 and always is given a score of 3. In the present study, the EAT-26 was found to have high internal consistency ($x = .93$).

The Eating Disorder Inventory-2 (EDI-2; Garner, 1991) is a 91-item, standardized self-report measure consisting of 11 subscales that assess specific cognitive and behavioral dimensions of eating disorders: drive for thinness, bulimia, body dissatisfaction, ineffectiveness, perfectionism, interpersonal distrust, interoceptive awareness, maturity fears, asceticism, impulse regulation, and social insecurity. The last three subscales are new to the revised edition of the EDI-2. The original EDI-2 demonstrated good internal consistency as well as good convergent and discriminant validity (Garner, Olmsted, & Polivy, 1983). Alpha coefficients for the eight original subscales range from .82 to .90. Internal consistency for the three new subscales is fair to good, with alpha coefficients between .70 to .80. The EDI-2 has been used in numerous studies and has been found to successfully differentiate between participants with and without eating disorders (Garner, 1991). In the present study, the internal consistency of the EDI-2 total score was high ($x = .98$) and fair to good for most of the subscales: drive for thinness ($x = .82$), bulimia ($x = .85$), body dissatisfaction ($x = .84$), ineffectiveness ($x = .83$), perfectionism ($x = .77$), interpersonal distrust ($x = .79$), interoceptive awareness ($x = .71$), maturity fears ($x = .87$), asceticism ($x = .73$), impulse regulation ($x = .86$), and social insecurity ($x = .86$).

The Parental Bonding Instrument (PBI; Parker et al., 1979) is a self-report questionnaire including 25 items, each describing a parental attitude toward the subject. There are 12 “care” items reflecting the dimension of care/involvement versus indifference/rejection, and 13 “control” items, which measure the dimension of control/overprotection/intrusion versus encouragement of independence. Participants are asked to rate each parent on a 4-point Likert scale, in which 0 is very like, 1 is moderately like, 2 is moderately unlike, and 3 is very unlike the parent in question. Two scores are obtained for each parent, a care score and a control score. Scores are computed so that the higher the score, the higher the care or the control exercised by the parent. The care scale and the control scale may be used separately or together as a bonding instrument. Used together, they allow four types of parental bonding to be examined: high care and low control, which might be conceptualized as optimal bonding, low care and low control, conceptualized as absent or weak bonding, high care and high control, conceptualized as affectionate constraint, and low care and high control conceptualized as affectionless control (Parker et al., 1979). In the original version of the instrument, there were five statements constructed with double negatives. Parker (1983) found that participants were confused by these statements, so we implemented a corrected version, omitting the double negatives as proposed by Gamsa (1987). Parker et al. (1979) reported good test-retest and split-half reliability of the instrument. There is also concurrent validity of the two scales of the instrument with rater scores obtained at interview. The PBI has been shown to discriminate between neurotic and nonclinical populations: Neurotic subjects tend to produce high control and low care scores (Parker, 1983). In the present study, the PBI was found to have high internal consistency for all four scales: care scale (mother: $x = .93$; father: $x = .88$), control scale (mother: $x = .90$; father: $x = .88$).
Procedure

Anorexia nervosa participants were recruited by systematically reviewing all patients newly admitted to either the psychiatric department at Hadassah Medical Center in Jerusalem or at Rambam Medical Center in Haifa during a 4-year period. All anorexic participants agreed to participate in the study, but in two instances their parents did not agree; therefore, these families were not included in the study. Patients were interviewed by a clinical psychologist using the Schizophrenia and Affective Disorders Schedule-Eating Disorders (Spitzer & Endicott, 1989) and were considered eligible for recruitment if they met the DSM-IV criteria for anorexia nervosa. After admission they were treated as either inpatients or outpatients, according to the severity of their illness. Families of nonclinical comparison participants were contacted through the social network of the anorexic families to obtain subjects with similar occupational and educational levels. Initially, 43 comparison families were recruited, 10 of these families were subsequently disqualified due to evidence that the daughter exhibited either a subclinical eating disorder or other significant psychiatric disturbance.

Anorexic and nonclinical participants completed EAT-26 and EDI-2 questionnaires. They also completed the PBI, describing the perceived relationship with their parents. Participants completed the questionnaires in the same order as follows: EAT-26, EDI-2, and PBI. Both parents of anorexic and nonclinical participants completed the PBI questionnaire referring to their own parents.

The study was approved by the Helsinki Committee of the Hadassah University Hospital. All participants signed an informed consent.

Data Analysis

We used t tests for independent samples to compare anorexic to nonclinical participants in parental and grandparental bonding (first and third hypotheses). Chi squares were calculated to measure the association between parental bonding style and anorexia nervosa (second hypothesis). Pearson correlation coefficients were calculated to measure associations between eating disorders psychopathology and parental bonding or grandparental bonding (fourth and fifth hypotheses). Two-tail significance levels were provided. All statistical calculations were performed using SPSS 13.0 for Windows.

Results

Means of parental bonding, EAT-26 and EDI-2 for anorexia nervosa and nonclinical participants are presented in Table 1.

As hypothesized, anorexia nervosa participants reported both their mothers and fathers to be less caring than did the nonclinical participants and they reported their fathers to be more controlling than nonclinical subjects did. The difference between the groups in mother control did not reach statistical significance and therefore this hypothesis was not supported.

To examine parenting effects on eating disorders in the second generation, PBI measures of grandparents of anorexia nervosa participants were compared to those of nonclinical participants. The bonding between the mother of the anorexic participant and her own mother in the care or control scale was indicated as “maternal grandmother care/control” and the bonding between the father of the anorexic participant and his own mother as “paternal grandmother care/control.”
A similar nomenclature was used for grandfathers. Contrary to our assumptions, no differences were found between the groups in most of the PBI scales, with the exception of one case. Control scores of the paternal grandfather of the anorexic participants were greater than those of the nonclinical participants. Because significant correlations were found between paternal grandfather control and father control ($r = .31$, $p < .05$) and between paternal grandfather control and father care ($r = -.43$, $p < .001$), we performed an analysis of covariance to determine whether the difference between the groups in paternal grandfather control persisted after controlling for father care and father control. In this analysis, father care was the only significant covariate, $F(1, 48) = 9.02$, $p = .004$, and there was no significant difference between the anorexia and nonclinical groups in paternal grandfather control, $F(1, 48) = 91$, $ns$.

The classification in four types of maternal and paternal bonding and the respective $\chi^2$ for the $4 \times 2$ tables are presented in Table 2. As hypothesized, a substantial percentage of anorexic participants characterized the bonding between themselves and their fathers as one of affectionless control in contrast to nonclinical participants. On the contrary, less anorexia nervosa patients reported an affectionate constraint bonding with their fathers than did the nonclinical group. The comparison of the affectionate constraint versus affectionless control categories of paternal bonding for the $2 \times 2$ table by the Fisher’s exact test ($df = 1$), was significant ($p = .003$).

Although a substantial percentage of anorexic participants characterized the bonding between themselves and their mothers as one of affectionless control in contrast to nonclinical participants, these results did not reach statistical significance. As hypothesized, among anorexic participants, parental bonding was associated with the degree of eating disorder psychopathology (see Table 3). Mother control was positively correlated with the EAT-26 total score, the EDI-2 total score, and 7 out of 11 EDI-2 scales. Father care was negatively correlated with EDI-2 total score.
and two of the EDI-2 scales. Mother care was associated to a lesser extent to eating disorder psychopathology. No associations were found between father control and symptom severity.

Results partially supported the hypothesis that the quality of the parental bonding between parents and grandparents of anorexia nervosa participants was associated with the degree of the eating disorder psychopathology in the anorexic daughters (see Table 4). Mothers of anorexia nervosa patients that perceived their own mothers as less caring, had daughters that reported more symptoms in the EAT-26 and in two scales of the EDI-2, which measure the following eating disorder symptoms: drive for thinness and bulimia. Fathers of anorexic participants that perceived their own mothers as less caring, had daughters that reported more symptoms in the EAT-26, and the EDI-2 total scores. However, due to the small sample size, even though these correlations were quite substantial ($r = 0.40; p < 0.07$ and $r = 0.45; p < 0.07$, respectively), they did not reach statistical significance.

### Discussion

The purpose of this study was to examine the association between the nature of parent–child relationships and eating disorders with an emphasis on intergenerational parenting effects. We must keep in mind that these relationships were assessed by a self-report measure. Although Parker (1983) reports good validity of the PBI, it is possible that the measure reflects perceived, rather than actual, relationships. However, as Parker points out, the perceived characteristics of parents are not less important than the actual ones in the development of psychological disorders (Parker, 1983).

The present study replicates previous studies which found that anorexia nervosa young women report their mothers to be less caring when compared to a nonclinical group. Anorexic participants in this study also rated their fathers as less caring and more controlling than nonclinical participants did, a finding which was not consistent across all studies. These results support the hypothesis that low care would be associated with anorexia nervosa. The care dimension of the PBI, which comprises affection, emotional warmth, empathy and closeness, is theoretically close to the requirement that the parent should be attuned to the child’s inner states (Bruch, 1973) and maintain an empathic stance (Geist, 1989; Goodsit, 1985; Sands,

### Table 2

<table>
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<tr>
<th></th>
<th>Optimal</th>
<th>Affectionate constraint</th>
<th>Weak</th>
<th>Affectionless control</th>
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</thead>
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<td><strong>PBI Mother</strong></td>
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<td>Anorexia</td>
<td>12 (27.9%)</td>
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<td>8 (18.6%)</td>
<td>15 (34.9%)</td>
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<td>Nonclinical</td>
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<td>7 (21.2%)</td>
<td>3 (9.1%)</td>
<td>5 (15.2%)</td>
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<td><strong>PBI Father</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anorexia</td>
<td>14 (32.6%)</td>
<td>1 (2.3%)</td>
<td>9 (20.9%)</td>
<td>19 (44.2%)</td>
</tr>
<tr>
<td>Nonclinical</td>
<td>14 (42.4%)</td>
<td>7 (21.2%)</td>
<td>6 (18.2%)</td>
<td>6 (18.2%)</td>
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</table>
Table 3

Correlations Between the PBI Scales of the Parent–Daughter Relationship and Eating Disorder Psychopathology in the Anorexia Nervosa Group

| EAT-26 | EDI | dt | b | bd | i | p | id | ia | mf | a | ir | si |
|--------|-----|----|---|----|---|---|----|----|----|----|----|----|----|

Mother care: -27 -.16 -.18 -.21 -.06 .01 -.19 -.18 -.37* -.04 -.37* -.07 -.05
Mother control: .35* .50** .33* .15 .34* .36* .47** .42** .11 .31 .46** .34 .49**
Father care: -.26 -.35* -.15 -.26 -.10 -.14 -.08 -.23 -.07 .02 -.33 -.55** -.44*
Father control: .11 .14 -.01 .25 -.02 .06 -.05 .25 .18 -.13 .14 .31 .15

Note. PBI = Parental Bonding Instrument; EAT-26 = The Eating Attitudes Test-26; EDI-2 = Eating Disorder Inventory-2; dt = drive for thinness; b = bulimia; bd = body dissatisfaction; i = ineffectiveness; p = perfectionism; id = interpersonal distrust; ia = interoceptive awareness; mf = maturity fears; a = asceticism; ir = impulse regulation; si = social insecurity.
* p < .05; ** p < .01.

Table 4

Correlations Between the PBI Scales of the Parent–Grandparent Relationship and Eating Disorder Psychopathology in the Anorexia Nervosa Group

| EAT-26 | EDI | dt | b | bd | i | p | id | ia | mf | a | ir | si |
|--------|-----|----|---|----|---|---|----|----|----|----|----|----|----|

Maternal grandmother care: -.41* -.23 -.44* -.46* -.12 -.06 .03 -.06 -.16 .18 -.19 -.14 -.23
Paternal grandmother care: -.40 -.45 -.32 -.24 .01 -.16 .03 -.36 -.37 -.14 -.36 -.33 -.35

Note. PBI = Parental Bonding Instrument; EAT-26 = The Eating Attitudes Test-26; EDI-2 = Eating Disorder Inventory-2; dt = drive for thinness; b = bulimia; bd = body dissatisfaction; i = ineffectiveness; p = perfectionism; id = interpersonal distrust; ia = interoceptive awareness; mf = maturity fears; a = asceticism; ir = impulse regulation; si = social insecurity.
* p < .05; ** p < .01.
1991) during child development. Parents who fail to be responsive to their children will probably be perceived as less caring by the young adult.

Even though there seemed to be some consensus among family therapists suggesting a pattern of intrusiveness, excess of care, and overprotection in eating disorder families (Minuchin et al., 1978; Sours, 1980), these predictions were not clearly confirmed in previous research: Among the studies reviewed, only one study found more father control in anorexia nervosa participants (Steiger et al., 1989) and another found more mother control (Gomez, 1984). In the present research, father control significantly distinguished between the groups, but maternal control was not significant. Paternal control was a significant factor when combined with the care scale: Among anorexia nervosa participants, the affectionless control category was the most frequent. This category, which reflects less affection and empathy combined with excessive control and prevention of independence, seems to be associated with the development of anorexia nervosa.

The present study examined, for the first time, the impact of the bonding between parents and grandparents on the anorexic granddaughters. The results suggest that parental characteristics of grandparents might play a role in the development and maintenance of eating disorders in their granddaughters.

Paternal grandfathers of anorexic participants were perceived as more controlling than the grandfathers of the nonclinical participants, implying the intergenerational transmission of parenting effects. However, when father care scores were controlled this effect disappeared, suggesting that the grandfathers controlling behavior has an indirect effect on eating disorders. The controlling behavior of grandfathers was associated with more controlling behavior and less caring in their sons when they became parents, as reported by their daughters, thus supporting the predictions of the attachment theory regarding parents’ behavior continuity. Still, it is the father–daughter relationship that has a direct impact on eating disorders.

According to Bruch’s prediction that the prevention of independent behavior may be pathogenic of eating disorders (Bruch, 1982), mother control was clearly associated with the severity of the illness within the anorexia nervosa group. This suggests that even though anorexia nervosa patients, as a group, suffer from lesser mother (and also father) care, within this group, the more the control the more the symptoms. Father and mother care were also associated, although to a lesser extent, with eating disorder severity. These results confirm our hypothesis that the quality of parental bonding is associated not only with the development of the eating disorders, but also with its severity.

As previously mentioned, mother control was not significantly different between the anorexia and nonclinical groups and the control dimension yielded less consistent findings across the studies. It is possible that the control dimension does not play an independent role and it is only the intertwinment of it with the care dimension that has an impact on psychopathology. In other words, lack of closeness, indifference, and lack of empathy may be more detrimental factors than excessive contact, overprotection, intrusion, and lack of autonomy, at least in the etiology of eating disorders. The study of Bulik et al. (2000), which examined the most disturbed population of chronic anorexics, seems to confirm this assumption: They found that the chronically ill anorexic participants reported significantly lower maternal and paternal care than the recovered group and lower maternal care even from the partially recovered group, but there were no differences in parental control. Within the anorexic group, grandmother care (from both the paternal and the maternal side) was associated with severity of symptoms of anorexia nervosa in granddaughters.
These results underline the central role of the care dimension of parental bonding in eating disorders, which probably has an impact on eating disorder psychopathology, directly and indirectly, and is transmitted across generations.

In this study, the assessment of illness severity included measures of attitudes and behaviors concerning eating, as well as psychological traits clinically relevant to eating disorders. Two psychological dimensions were found to be more consistently associated with parental bonding: asceticism, which is the tendency to self-discipline, self-denial and the control of bodily urges, and social insecurity or the belief that social relationships are insecure, disappointing, and unrewarding. Asceticism was associated with mother care and mother control. Social insecurity was associated with mother control and father care. It is possible that the quality of the parent–daughter relationship has a greater impact on the mentioned traits compared to other traits, but these results are preliminary and further research is needed to reach more definitive conclusions.

Studies of the intergenerational transmission of parenting effects have been conducted in different fields of research, but rarely in the field of eating disorders. Our study is an initial contribution to the research of parent–grandparent relationships and their impact on the quality of bonding between parents and their child diagnosed with eating disorders. Our findings may encourage other researchers to inspect this neglected issue and to examine other aspects of the parent–grandparent relationships and how they affect family ties and eating psychopathology.

The present findings are relevant to clinicians treating individuals with eating disorders. They underscore the potential benefits of family therapy, which aims to deal with emotional difficulties between the patient and her parents. Moreover, clinicians conducting individual psychotherapy should consider parental counseling as an important complement to treatment. According to our results, it may be useful to design prevention programs focused on the parent population instead or in addition to the adolescent or preadolescent population. These programs should discuss issues of control, overprotection, and independence, as well as issues of closeness, affection, and empathy in the parent–child relationship. It might be worthwhile to discuss childhood experiences with their parents and how they manifest themselves, sometimes in unconscious ways, in attitudes and behaviors towards their children. The results of the intergenerational transmission of parenting effects and its impact on eating disorders leaves many questions open to debate. The mechanisms by which these effects operate might be complex; parenting styles may be continued by means of working models as the attachment theory postulates, or by modeling as learning theories assume, or even both processes may be present. Further research is needed to elucidate this point. Alongside developmental processes, we must be mindful of research evidence about the possible role for genetic factors in the transmission of some child-rearing characteristics across generations (Kendler, 1996).

In addition, when considering parent–child relationships, it is difficult to establish the direction of the parenting effects. Does the eating disorder bias the individual’s perception of her parents? Moreover, does the eating disorder change the parents’ behavior so the parent becomes actually less caring, or does the real lack of care contribute to the development of eating disorders as psychodynamic theories propose? Similarly, the controlling behavior may be a distorted perception of the parent from the point of view of a defiant anorexic adolescent or it may be new parental attitude as the result of the parents’ effort to cope with the adolescent’s self-harming illness. In this respect, the intergenerational analysis can make some
contribution. Because grandmother care was scored by the mothers (or fathers) of the anorexic participants and because the parents did not suffer from the condition, it is reasonable to suppose that the report of these relationships will be less biased by the illness of their children. A similar argument is pertinent for grandfathers’ intergenerational effects. This is still far from resolving the issue of causality, but this rationale suggests that it is the real parent–grandparent interaction that has an impact on the eating disorder of the granddaughter.

Even if we are not sure that the parents’ perception of their own parents is not influenced by their daughters’ illness, we must remember Parker’s comment that the perceived parenting is not less important than the real parenting and thus the reported perceived parenting still keeps the idea of an intergenerational transmission of parenting styles.

The results of the present study should be interpreted in the context of its limitations. The small sample prevented us from analyzing the direct and indirect effects in the correlation found between grandmother care and granddaughter psychopathology. Additional research with a larger sample of anorexic participants is required to replicate and clarify the nature of this association. The present study design compared eating disorders to a nonclinical group. However, parental bonding differences between anorexic participants and nonclinical participants may be nonspecific to eating disorders as other neurotic populations show the same pattern of parent styles. It is possible that low care and high control parental behavior is a risk factor of psychopathology in general, not unique to eating disorders. Future research including other mental disordered groups is needed to clarify this topic. Future research might investigate theoretical questions left unanswered by this work by examining the specific mechanisms operating in the intergenerational transmission of parental bonding.

References


