

Differences in Family Dynamics Among Anorexic, Bulimic, Obese and Normal Women

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ABSTRACT. Family dynamics and communication patterns among eating disordered women were investigated. In general, anorexic, bulimic, and obese subjects exhibited more family disturbance than controls. In addition, bulimic subjects evidenced more family disturbance than anorexic or obese subjects. Implications for assessment, diagnosis, and treatment are discussed. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com <Website: <http://www.haworthpressinc.com>>]

KEYWORDS. Eating disorders and family dynamics, communication, background, disturbance

INTRODUCTION

The presence of dysfunctional family interaction patterns among eating disordered women has often been recognized in previous literature (e.g., Grigg, Friesen, and Sheppy, 1989; Dolan et al., 1990; Ord-

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man and Kirschenbaum, 1986; Walters and Kendler, 1995; Waller, 1994). In general, families of anorexics have been found to be over involved and overprotective with strong maternal control, whereas families of bulimic women have been described as exhibiting significantly worse problem solving ability, communication, cohesion, behavioral control as well as affection and interaction. Studies examining family dynamics among obese subjects (e.g., Kinston et al., 1988; Mendelson et al., 1995) have noted a lack of communication, resignation to the condition and subsequent lack of concern about eating behavior. Lack of cohesion, democratic style, expressiveness and parental neglect have also been reported.

Communication Styles

Previous studies have reported a significant relationship between dysfunctional familial communication patterns and eating disorders. For example, women reporting high levels of eating disordered attitudes and behavior have also reported their families to be unable to accurately express thoughts and emotions, provide empathy, resolve conflict or take responsibility for their actions (Reeves and Johnson, 1992). Studies which specifically examined familial communication patterns among eating disordered and non-eating disordered groups have found bulimic and anorexic women to perceive their parents as more blaming, rejecting, and neglectful toward them compared to normal women (Humphrey, 1986, 1988).

Research examining perceptions of family interactions among eating disordered groups have been mixed. On the one hand, studies have reported both anorexic and bulimic families to perceive members as less supportive with limited reinforcement for the expression of feelings compared to control subjects. Family interaction patterns were described as having high levels of enmeshment, overprotectiveness, rigidity and unresolved conflict (Lieberman, 1989; Stern et al., 1989). However, Kog and Vandereycken (1989) have reported that despite the presence of interpersonal boundary problems, instability and conflict avoidance, anorexic women perceived their family as stable and cohesive. In contrast, bulimic women perceived their families as lacking cohesiveness, stability and organization. Similar findings have also been reported by Humphrey (1988). In this study, both anorexic and bulimic groups reported experiencing neglect, rejection and blame, however, compared to the bulimic and control families, anorec-

tic families denied the existence of problems in the parent-child relationship.

Studies examining obesity are limited and outdated. It has been reported that the obese child acts as a compensatory mechanism for the parents (usually the mother) for their disappointments (e.g., Bruch, 1973). The result is a child who is passive and dependent. Communication patterns within families of obese individuals is predictably dysfunctional. Parents have been reported to engage in conflicting communication (e.g., unpredictable shifts in emotional support) which leaves the child confused (Bruch, 1973).

Present Study

Despite reported commonalities of perceived dysfunctional patterns among eating disordered women, there is evidence to suggest that these patterns may differ significantly between subtypes. For example, it is unclear from the literature whether anorexics perceive family members as supportive. In some studies, anorexic women have reported dysfunctional communication patterns whereas in others they have denied the presence of parent-child problems. In contrast, bulimic women have consistently reported dysfunctional family communication patterns.

In addition, previous research has been flawed by numerous methodological problems which limit the significance of reported findings. For example, most studies have lacked a clearly defined control or psychiatric comparison group. Further, many studies lack a clear differential diagnosis of eating disorder subtypes, e.g., the inclusion of bulimic subjects with a history of anorexia. In addition, many studies have made no distinction between eating disorder subtypes, collapsing all subjects into a heterogeneous eating disorder group. Finally, reported studies have not compared family communication patterns in obese subjects with that of other eating disordered subtypes. The purpose of the present investigation is to further examine family characteristics among anorexic, bulimic, obese and control subjects while correcting for a number of the methodological flaws of previous research.

STUDY 1

METHOD

Participants

Subjects included 101 women admitted to an inpatient eating disorders program located in Southern California, and 53 non-eating disordered college women who served as controls. Eating disordered women were further classified by subtype according to DSM-III-R criteria: Anorexia ($n = 25$), Bulimia ($n = 43$), and Eating Disorder Not Otherwise Specified (obesity) ($n = 33$). All subjects were female. The mean age of the total sample was 26.77. Mean ages of the Anorexic, Bulimic, Obese and control groups were 19.33, 22.48, 25.81, and 23.21 respectively. Mean weights of the anorexic, bulimic, obese and control groups were 88.76, 130.39, 256.48 and 127.13 respectively. Mean education of the total sample was 13.46. Mean educational levels of the anorexic, bulimic, obese and control groups were 13.00, 13.46, 13.79 and 13.49 respectively. Seventy-nine percent of the total sample was Caucasian, eight percent Hispanic, 3% African-American, and two percent other. Seventy-three percent of the total sample were single, 12% married, 14% divorced or separated, and one percent widowed.

Instruments

Family Adaptability and Cohesion Scales (FACES; Olson, Portner, & Bell, 1982). The FACES is a 30 item self-report measure of family structure and closeness. The respondent reads a statement and rates how frequently the described behavior occurs in her family. The ratings are done on a likert scale ranging from 1 (almost never) to 5 (almost always). It takes approximately 5-10 minutes to complete.

There are two subscales present within FACES: Adaptability and Cohesion. The Adaptability Scale includes 14 items where lower total scores indicate a lack of structure in the family (e.g., anarchy, chaos), and higher scores indicate too much structure (e.g., inflexibility, rigidity). The Cohesion Scale consists of 16 items where lower total scores indicate family detachment and disengagement, and higher scores indicate over-involvement and enmeshment.

Olson et al. (1982) indicates that FACES has good internal consistency: Cohesion Scale, $r = .87$, and Adaptability Scale, $r = .78$. Test-retest reliability (4-5 weeks) was .83 for Cohesion and .80 for Adaptability. With respect to concurrent validity, the FACES showed .93 and .79 correlations respectively between the Cohesion and Adaptability scales, and the global measure of family health on the DASS Self-report Family Inventory.

Eating Disorder Inventory (EDI; Garner, Olmsted, & Polivy, 1983). This measure was designed to assess psychological behavioral traits common in anorexia nervosa and bulimia nervosa. The EDI is a 64-item, self-report questionnaire that measures characteristics associated with eating disorders. It takes approximately 20 minutes to complete. The EDI consists of eight subscales: (1) Drive for Thinness, (2) Bulimia, (3) Body Dissatisfaction, (4) Ineffectiveness, (5) Perfectionism, (6) Interpersonal Distrust, (7) Interoceptive Awareness, and (8) Maturity Fears. Higher scores indicate characteristics more similar to the characteristics of persons with eating disorders. Garner et al. (1983) reported each subscale had a coefficient alpha of greater than .80. In addition, Garner and Olmsted (1984) reported criterion-related validity between .43 and .68 by comparing patients' EDI profiles with clinical judgments of experienced clinicians.

Procedure

Women admitted to the eating disorders program were routinely assessed by a physician, psychiatrist, counselor, and psychologist within 72 hours of admission. Following assessment, a written medical evaluation, psychosocial history, psychiatric evaluation, and psychological testing was conducted. The medical and psychiatric evaluations included a DSM-III-R diagnosis (APA, 1987). Included in the psychological evaluation were the FACES and EDI.

The EDI and FACES were also administered to male and female college students in six undergraduate psychology classes. Only female student responses were used in the study as all subjects in the eating disorders program were women. Potential control subjects were screened for eating disorders with the EDI. Specifically, students scoring higher than nine on the Drive for Thinness scale or higher than four on the Bulimia scale were eliminated as these scores represented approximately one standard deviation above the mean for the normative group in the EDI manual (Breux and Moreno, 1994). In addition,

individuals with a history of inpatient or outpatient treatment for an eating disorder were excluded from the screening procedures.

RESULTS

One-way analyses of variance (ANOVA) showed significant differences between groups for the FACES Cohesion scale $F(3,102) = 10.58, p < .001$ and Adaptability scale $F(3,101) = 9.46, p < .001$. Mean differences based on Scheffe follow-up tests are presented in Table 1. With regard to the Cohesion scores, results showed the anorexic and control groups to report significantly greater family cohesion compared to the bulimic group. With regard to the Adaptability scores, results showed the bulimic and obese groups to report significantly more rigidity than the control group. Although no significant difference was found between anorexic and bulimic groups, anorexic subjects tended to report less rigidity in their families.

STUDY 2

METHOD

Participants

Subjects included 42 eating disordered women admitted to the same inpatient eating disorders program described in Study 1, and 55 non-eating disordered college women who served as controls. Eating disor-

dered women were further classified into diagnostic subtypes using the diagnostic criteria described in Study 1: Anorexia ($n = 11$), Bulimia ($n = 24$), and Eating Disorder Not Otherwise Specified (obese) ($n = 7$). The mean age of the total sample was 24.86. Mean ages of the Anorexic, Bulimic, obese and control groups were 18.63, 23.87, 34.42 and 25.32 respectively. The mean weight of the total sample was 131.19. Mean weights of the Anorexic, Bulimic, obese and control groups were 85.90, 121.60, 257.28 and 128.33 respectively. Mean educational level for the total sample was 15.02. Mean educational levels for the Anorexic, Bulimic, obese and control groups were 12.45, 13.65, 13.42 and 16.30 respectively. Seventy-two percent of the total sample were single, 18% were married, and 10% were divorced/separated. Eighty-seven percent of the total sample were Caucasian, eight percent Hispanic, three percent Asian and one percent were from other ethnic backgrounds.

Instruments

Parent-Adolescent Communication Scale (PACS; Barnes & Olson, 1982). This scale was designed to assess perceptions of intra family and intergenerational communication. The measure contains two subscales: Open Family communication, which assess the degree of freedom with which information is exchanged between parents and children, and Problems in Family communication, which measures difficulties in the intergenerational exchange of information (Barnes & Olson, 1982).

The instrument includes a Parent Form and an Adolescent Form. The Parent Form requires each parent to report his or her perceptions of communication with their adolescent. The Adolescent Form requires the patients to respond to the items twice, once as they view their interaction with their mother and a second time regarding their father. Due to the specific interest in the adolescent population as well as the age of the subjects involved, only the Adolescent Form was used in this study in order to separately compare the responses of adolescents and young adults with their mothers and fathers. The form takes approximately 5-10 minutes to complete.

Research reveals supporting evidence for good internal consistency and construct validity for the Parent-Adolescent Communication Scale. For example, the alpha reliability for internal consistency was .87 for the Open Family communication subscale, .78 for the Problems in Family Communication subscale, and .88 for the Total Scale. In addition, the authors of the instrument assessed the construct validity

TABLE 1. Means and Standard Deviations for FACES

	Anorexic (N = 25)		Bulimic (N = 43)		Obese (N = 33)		Control (N = 53)		F	Mean Differences
	M	SD	M	SD	M	SD	M	SD		
Cohesion	53.0	14.5	41.4	11.9	48.5	12.9	58.0	11.6	10.22	A&C > B
Adapt.	41.5	10.2	35.8	9.7	32.8	9.5	44.6	8.3	9.10	C > B&O

A = Anorexic
B = Bulimic
O = Obese
C = Control

ty by performing a factor analysis. The mean loading for the Open Family communication subscale was .60 and the mean loading for the Problems in Family Communication subscale was .48 (Barnes & Olson, 1982).

Eating Disorder Inventory (EDI; Garner, Olmsted, & Polivy, 1983). See Study 1 for a description of this measure.

Procedure

The procedure was identical to the one used in Study 1.

RESULTS

In order to test the assumption of homogeneous variances across the four populations, a Cochran's *C* test was performed and proved not significant. The subsequent one-way ANOVA showed significant differences between groups for the PACS mother form $F(3,93) = 5.54$, $p < .002$. Mean differences based on LSD follow-up tests are presented in Table 2. Results show bulimic and obese subjects to report significantly lower communication with mother compared to anorexic and control subjects. ANOVA for the PACS father form showed no significant differences between groups.

DISCUSSION

Family Dynamics

Present findings support previous research reporting significant differences in family dynamics among subtypes of eating disordered

women. Specifically, anorexic women reported greater family cohesion and flexibility compared to obese and bulimic women. In addition, control subjects reported greater communication with their mothers than bulimic ones. However, although previous research has reported greater rigidity in anorexic families (Calam et al., 1990), present findings show greater rigidity among bulimic and obese families compared to controls.

One possible explanation for these findings is that while obese and bulimic families may be more chaotic than anorexic families, they attempt to compensate by establishing strict rules which are then not implemented, and thus provide the superficial appearance of rigidity. Both bulimic and obese individuals may then deal with the underlying chaos via compulsive overeating which brings temporary release of tension. On the other hand, families of anorexics may be more cohesive with a set of enforced rules which precipitates or exacerbates the restriction of food intake. In this study, anorexic women reported significantly greater cohesion among family members compared to the bulimic group. This finding is consistent with earlier reports (Johnson & Connors, 1987) which suggests that anorexics and bulimics come from over involved and under involved families, respectively.

Family Communication

Present findings indicate non-eating disordered women have significantly better communication with their mothers compared to bulimic women. There is also a trend to suggest that anorexics have better communication with their mother than bulimic and obese women. Specifically, the anorexics scored similar to the control subjects, and the obese women scored similar to the bulimic subjects. In all likelihood, small cell size for these two groups compromised the statistical significance of their scores on this measure. These observations are consistent with previous research showing bulimics and obese women to perceive their family communication as more dysfunctional compared to non-eating disordered women (e.g., Blouin et al., 1990; Humphrey, 1988).

The lack of significant communication differences between the anorexic and control groups is consistent with some research findings (e.g., Humphrey, 1988) but not others (e.g., Stern et al., 1989). One explanation for present findings is that anorexics may fail to report family communication problems because of traits associated with the

TABLE 2. Means and Standard Deviations for PACS

	Anorexic (N = 11)		Bulimic (N = 24)		Obese (N = 7)		Control (N = 55)		F	Mean Differences
	M	SD	M	SD	M	SD	M	SD		
Mother	70.6	19.4	56.5	18.5	55.0	19.8	70.5	13.8	5.54	A&C > B&O
Father	59.5	17.4	57.4	18.9	49.4	20.6	64.0	18.3	1.70	NONE

A = Anorexic
B = Bulimic
O = Obese
C = Control

munication is interesting. Previous research shows fathers of obese children have not been found to be active participants in the life of their families (Anthony & Koupernik, 1970). They have also been described as weak and unassertive with the mothers playing the dominant role. Further, bulimic subjects have reported a tendency for their fathers to become increasingly distant during adolescence (Dolan et al., 1990). This may indicate that eating disordered women do not perceive their fathers as either negative or positive and thus do not report communication problems. However, it may also be the case that rather than acting as a neutral figure, the father is perceived as a detached or uninvolved figure. For example, the results from the FACES suggest the presence of a significant level of detachment among eating disordered groups. Thus, there may be dysfunctional father communication in the form of neglect (e.g., divorce) which cannot be identified in the present study due to the lack of sensitivity of the PACS.

This finding is also interesting due to the fact that other studies have shown a greater degree of sexual abuse in eating disordered persons, particularly bulimics. For example, Moreno and Selby (1997) found eating disordered subjects reported higher rates of sexual abuse than is found in the general population. The lack of reported communication problems in the present study may suggest the presence of denial as a coping mechanism and/or the lack of sensitivity of self-report measures.

FUTURE RESEARCH

Much of the research regarding eating disorders has provided evidence for the existence of a relationship between family dynamics and the development of eating disordered attitudes and behaviors. The present study was designed to ascertain the validity of previous findings by eliminating a number of methodological confounds (e.g., lack of control group, exclusion of obese subjects). Results suggest several lines of inquiry for future research.

Importantly, it will be necessary to obtain larger samples of eating disordered subjects who have been in treatment for at least six months in an attempt to reduce the effect of symptoms such as denial and perfectionism on the reporting of family dynamics. Further, future studies will need to incorporate psychiatric comparison groups in order to further establish that family dynamics in eating disorders are

disorder, e.g., denial, concern with body image, etc. For example, Root et al. (1986) noted that families of anorexics are similar to "the perfect family," so that present findings may reflect the anorectic's desire to maintain a facade of healthy family interaction. Because the anorexics in this study were assessed within 72 hours of admission, this facade may have had significant impact on the information reported. Later treatment and follow-up observations may have uncovered family communication problems which would produce more accurate reports. Thus, it would be important in future research to collect data on perceptions of family communication patterns at post-treatment and follow-up in order to determine the accuracy of present findings.

Inpatient treatment status may have also had a significant effect on present findings. A number of previous studies using outpatient anorexic subjects have reported significant communication differences between eating- and non-eating disordered families. To be sure, inpatient subjects suffer from more severe cases of anorexia, and subsequently may exhibit greater denial of family communication patterns. Thus, anorexics used in the present study may, paradoxically, appear more normal in their family background due to their more severe degree of pathology.

Present findings also found bulimics and obese women to report significantly more problems communicating with their mothers compared to anorexic women. This has not been a common finding in previous literature, and is not surprising given that most studies combine anorexics and bulimics into one eating disordered group (e.g., Calam et al., 1990; Kög & Vandereycken, 1989). Importantly, studies which have included an obese population have reported subjects to have severe communication problems with their mothers (e.g., Chernin, 1981). In addition, bulimic subjects have reported lack of meaningful communication with their mothers (e.g., Dolan et al., 1990). The attachment to food, therefore, may be the bulimic as well as obese person's way of compensating for deficits in the mother-child relationship. Again, however, it may be that symptoms associated with anorexia (e.g., denial) may have led to an invalid report of family communication. Likewise, given that the anorexics in this study were roughly 18 years of age, it could be that they are too involved with their family of origin to have a more objective perspective that the age of the older subjects affords.

The lack of significant differences between groups for father com-

unique relative to other clinical populations. Studies employing both behavioral (e.g., direct observation of family interactions) and self-report measures would also enhance the validity of research findings by obtaining more accurate measures of family interaction.

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