Psychology, 2014, 5, 1730-1742
Published Online October 2014 in SciRes. http://www.scirp.org/journal/psych
http://dx.doi.org/10.4236/psych.2014.515180

Scientific Research

Object Relations and Relationships with Parents as Predictors of Motivation to Recover from Eating Disorders*

Dana Warshawsky, Jonathan E. Handelzalts

Department of Psychology, The Academic College of Tel Aviv-Yaffo, Tel Aviv-Yaffo, Israel
Email: jonathanh@013.net

Received 11 August 2014; revised 8 September 2014; accepted 3 October 2014

Copyright © 2014 by authors and Scientific Research Publishing Inc.
This work is licensed under the Creative Commons Attribution International License (CC BY).
http://creativecommons.org/licenses/by/4.0/

Open Access

Abstract

The lack of motivation to recover from eating disorders (ED) poses a big problem in light of literature showing the critical role motivation plays in the outcome of ED treatment. Literature exploring the factors contributing to motivation to recover is scarce. The current study aims at exploring the associations between aspects of object relations and quality of relationships with parents to the motivation for recovery in light of research suggesting an influence of these variables in the development of ED. 79 females, visitors of either "pro-anorexia" websites (in which ED are glorified as an alternative life style rather than being acknowledged as mental disorders) or "pro-recovery" websites, completed a set of questionnaires online including Eat-26, Anorexia Nervosa Stages of Change Questionnaire, Quality of Relationship Inventory regarding parents and blatt's Object Relations Inventory. Results show that while the score on EAT-26 was related to both mother and father variables, only the quality of relationship with the father is a significant variable in predicting motivation to recover from ED. Implications for treatment and further research are discussed.

Keywords

Eating Disorders, Motivation, Recovery, Object Relations, Parental Relationships

1. Introduction

Being one of the most deadly mental illnesses, eating disorders, and the recovery from them, have been studied for many years and received much attention in the literature. One of the most important factors in the recovery

*This research was conducted as a part of Dana Warshawsky's master's thesis under the supervision of Jonathan E. Handelzalts.

How to cite this paper: Warshawsky, D., & Handelzalts, J. E. (2014). Object Relations and Relationships with Parents as Predictors of Motivation to Recover from Eating Disorders. *Psychology, 5,* 1730-1742.
http://dx.doi.org/10.4236/psych.2014.515180

from eating disorders is the motivation or readiness to change. "Readiness or motivation to change" refers to the willingness of patients to introduce changes that lead to improvements in their disorder (Castro-Fornieles et al., 2011). The idea that motivation is a key factor in the outcome of behavioral change was grounded in the Trans-theoretical Model of Change (Prochaska & DiClemente, 1982). The Trans-theoretical Model of Change was originally developed in the field of addictions and describes five stages which people go through while trying to change. Each stage represents a motivational level of change. In the *pre-contemplation* stage, the behavior is not recognized as a problem and there is no effort to change. The *contemplation* stage is associated with the recognition of the problematic behavior but there exists ambivalence as to whether or not to change. In the *preparation* stage, the person wants to change the behavior but doesn't know how to do or requires assistance. In the *action* stage, the person is in the process of changing the behavior. Finally, the *maintenance* stage focuses on maintaining the change in behavior and avoiding regression to the problematic behavior.

The Trans-theoretical Model of Change can be applied to patients with eating disorders and can help explain their varied responses to treatment. Treatment is typically aimed at people who are in the action stage. The Trans-theoretical Model predicts that treatment failure occurs because the treatment approach does not correspond with the patient's stage of change (Prochaska & DiClemente, 1992). Research has been conducted to determine if the Trans-theoretical Model of Change is applicable to people with eating disorders (Blake, Turnbull, & Treasure, 1997; Treasure et al., 1999; Ward, Troop, Todd, & Treasure, 1996), and it was concluded that the Trans-theoretical Model of Change provides a useful approach to understanding the process of changing problem behaviors associated with eating disorders (Feld, Woodside, Kaplan, Olmsted, & Carter, 2001).

Recent literature focusing on course of illness and treatment outcome in eating disorders has stressed the role of the patient's motivation to recover, his readiness to change and the patient's stage of change (Bewell & Carter, 2008; Castro-Fornieles et al., 2011; McHugh, 2007; Wolk & Devlin, 2001). For example, Geller, Drab-Hudson, Whisenhunt and Srikameswaran (2004) examined the relationship between readiness and motivation to change eating disorder symptoms and clinical outcomes during and following intensive treatments. The extent to which participants were reluctant to make dietary changes at baseline was the most consistent predictor of short-term clinical outcome. Wade, Frayne, Edwards, Robertson and Gilchrist (2009) showed that higher motivational levels at the beginning of treatment predicted significant decreases in eating pathology in an inpatient anorexia nervosa population. They also managed to show that increase in motivation within 2-weeks predicted significant improvement in eating pathology. Some studies have focused on the patient's perspective of the recovery from eating disorders, attempting to identify the factors contributing to the recovery process as viewed by recovering patients themselves (Federici & Kaplan, 2008; Pettersen & Rosenvinge, 2002). Federici and Kaplan (2008), for example, explored the subjective accounts of recovered anorexia nervosa patients via qualitative interviews and found the internal motivation to change to be a key factor in the early stages of recovery as well as in the later stages.

The issue of motivation to change in eating disorders is of increased importance in light of a rising phenomenon on the internet referred to as "pro-anorexia". Pro-anorexia can be described as a movement supporting the virtues of eating disorders, mainly anorexia (Norris, Boydell, Pinhas, & Katzman, 2006). Pro-anorexia websites usually contain materials aimed at encouraging self-starvation and glorifying thinness. These websites promote the idea that anorexia and bulimia are not mental disorders, but rather an alternative life-style choice. The agenda of these websites is reason for concern in light of the fact that studies are showing the growing popularity of the of pro-anorexia concept and its dangerous potential consequences. For example, a study on pro-eating disorders website usage among adolescents with eating disorders showed that 41% visited pro-recovery websites and 35% visited pro-anorexia websites, while 25% visited both (Wilson, Peebles, Hardy, & Litt, 2006).

Several studies have attempted to assess the contribution of pro-eating disorders websites in the development and in the hindering of recovery from disordered eating. Some studies have managed to show the association between viewing of pro eating disorders website and eating pathology or severity of symptoms (Custers & Van den Bulck, 2009; Harper, Sperry, & Thompson, 2008), yet these findings are of an associative nature. Others tried to show causality, for example, by assigning 235 healthy women to view one of 3 kinds of websites designed by the researchers for 25 minutes, with one of them being a pro anorexic website. A series of questionnaires was completed before and after the exposure to the website, showing that women exposed to the pro anorexic website reported higher perceived weight status, higher levels of negative effect, lower social self-esteem, lower appearance self-efficacy, and an increased likelihood of exercising or thinking about their weight than participants who viewed the control websites (Bardone-Cone & Cass, 2007). Jett, LaPorte and Wanchisn (2010)

found that viewing a pro eating disorders website can have behavioral effects as well as intentional ones. Participants who viewed a pro anorexic website decreased their caloric intake in the week that followed by an average of 2472 calories (as indicated by a food diary they completed), whereas no significant change was observed in the control groups viewing health or tourism websites.

While being key factors in the recovery process from eating disorders, little is known about the factors determining motivation to recover and readiness for change. Some studies have addressed this issue. For example, Stockford, Turner and Cooper (2007) found that the stage of change was predicted by the illness perceptions that the patient has, the levels of emotional distress about the eating problem and the beliefs the patient holds regarding treatment. Rushford (2006) found that state-anger as measured at admission was negatively correlated with readiness to recover. Nordbø et al. (2008) studied the content of anorexia patient's "wish to recover", i.e. themes that inspire the patient's motivation to change, and found 4 main constructs—sense of vitality, sense of autonomy, sense of insight and negative consequences.

In this study it was chosen to focus on aspects of family relationships and object relations as related to the motivation for recovery. The role of actual relationships with others as well as the mental constructs of them has received much attention in the study of the etiology of eating disorders. Object relation theory, as defined by Greenberg and Mitchell (1983), refers to attempts within psychoanalysis to confront the potentially confounding observation that people live simultaneously in external and internal worlds and that the relationship between the two ranges from the most fluid intermingling to the most rigid separation. The term, thus, designates theories, or aspects of theories, concerned with exploring the relationship between real, external people and internal images and residues of relations with them, and the significance of these residues for psychic functioning. From this perspective, psychopathology is seen as a consequence of a "basic fault" (Balint, 1968) in the relationship of the primary caregiver with the infant. Given the caregiver is responsive to the child's shifting needs, the child experiences a sense of security, control, and understanding. This enables the gradual acquisition of the internal capacity to perform functions previously performed by the caregiver, such as self-soothing (Winnicott, 1974). If, on the other hand, the object of support and nurturance is unresponsive due to absence, ambivalence, rejection, or hostility, the child is unable to develop a viable internal maternal image. Without external support, the self becomes fragmented, resulting in feelings of being overwhelmed, helpless, and ineffective.

Studies focusing on the internal representations of the relationships with others in the field of eating disorders have shown some interesting findings. Aronson (1986) assessed the relationship between levels of object representations derived from patient's descriptions of their parents and the severity of bulimic symptoms. Starvation, use of laxatives and vomiting were negatively associated with the level of object representation. A study conducted by Pollack and Keaschuk (2008) highlighted the relationship between bulimic symptoms, interpersonal dependency and object relations. Women with bulimia showed higher levels of interpersonal dependency needs and disrupted object relations than did women without eating disorders. Steiger and Houle (1991) examined a nonclinical population and found that women exhibiting "symptomatic eating" showed more object relations problems. Such findings, regarding a sub-clinical population, showing that object relations problems are perhaps present before a major eating disorder is present, can suggest that object relations problems are precursors of eating disturbances and not the other way around. Becker, Bell and Billington (1987) assessed object relations in bulimic and normal controls and found bulimic's to be elevated on fears of abandonment and lack of autonomy in relationships. In a study on attachment and bulimia (attachment being somewhat overlapping but not synonymous with "object relations", Ainsworth, 1969) Kenny and Hart (1992) found that the presence of an affectively positive and emotionally supportive parental relationship, in conjunction with parental fostering of autonomy, is inversely associated with weight preoccupation, bulimic behavior, and feelings of ineffectiveness. Broberg, Hjalmers and Nevonen (2001) also found eating disorders to be linked to insecure attachment and interpersonal problems among female patients attending an outpatient clinic. Based on Fonagy and Target's model, Rothschild-Yakar, Levy-Shiff, Fridman-Balaban, Gur and Stein (2010) examined the hypothesis that deficient mentalization abilities and maladaptive relationships with parents may be risk factors in the genesis of eating disorders. Their results showed that anorexia nervosa patients had lower mentalization levels. To conclude, different research methodologies revealed that problematic mental representation of relationships are associated with eating pathology.

A complementary body of research explored the role that actual relationships and the perceptions patients have regarding these relationships play in eating disorders pathology. Tantillo and Sanftner (2003) found that low levels of perceived mutuality (bidirectional movement of feelings, thoughts, and activity between persons in

relationship) with the father at baseline were associated with high levels of bulimic and depressive symptoms across assessment times (during psychotherapy), in a bulimia nervosa and binge-eating disorder population. Another study assessed perceived social support, the quality of relationships, and social skills in bulimic women compared with control participants. Bulimic women reported less perceived social support from others, more conflicts and negative interactions and less social competence. The level of negative interactions was strongly associated with the severity of bulimic symptoms even when controlling for psychopathology (Grissett & Norvell, 1992). A study examining the perceived "parental bonding" of anorexic females showed that anorexics reported significantly lower levels of care than the control group and disordered eating was associated with low maternal care (Swanson et al., 2010). Jones, Leung and Harris (2006) explored the relationship between parental rearing behaviors, core beliefs and eating symptomology. Their results showed that more negative recollections of paternal rearing, and higher levels of some core beliefs were associated with eating symptomatology. In addition, three core beliefs in particular (abandonment, defectiveness/shame and vulnerability to harm) were found to mediate the influence of paternal rearing behaviors on eating disorder psychopathology. In the study by Rothschild-Yakar and colleagues (2010) mentioned above, anorexia nervosa patients also reported significantly lower levels of quality of relationships with parents, compared with the control group. Botta and Dumlao (2002) studied how conflict and communication patterns between fathers and daughters contribute to eating disorders. They found that a lack of conflict resolution skills or attempting to resolve conflicts in ways that do not offer long-term resolution for both father and daughter can lead to increased eating disordered behaviors. Some studies have found evidence suggesting the importance of the patient's real and perceived relationships in the recovery process and outcome, though mostly via the patient's and therapist's perspectives. For example, Jenkins and Ogden (2012) analyzed interviews with recovered anorexics and found that women often commented on the value of support from family and friends as an important part of the recovery process. Drungaite (2009) studied autobiographies of anorexic patients who were either hospitalized or admitted to a day clinic, and found several themes that facilitated recovery, including "finding motivation to keep fighting towards recovery" and "the strengthening of the relationship between care giver and patient" ("care-giver" refers to clinic personnel). These findings, in conjunction, indicate the involvement of different aspects of close relationships, and specifically familial relationships, in eating disorders.

Based on the literature described here, the purpose of the current study was to assess the contribution of the relationships with parents and object relations to the motivation to recover from eating disorders, an association as of yet not explored, in a sample of females with different levels of disordered eating and different levels of motivation for recovery. It was hypothesized that a closer, conflict free and supporting relationship, as well as more mature and positive object relations would be associated with a higher motivation to recover.

2. Method

The procedure used in this study has been approved by the Tel-Aviv Yaffo Academic College Ethics Committee.

2.1. Participants

Participants were female volunteers, aged 12 to 46 (M = 19.99, STD = 5.83), who were asked to participate in the study anonymously, through the internet and without receiving any reward in return. They were approached by a message posted on websites (in English) which are either pro eating disorders oriented or pro-recovery oriented, in order to reach a heterogeneous sample of females in respect to the motivation for recovery variable.

2.2. Procedure

A special website was formed for the purpose of the study, protected by a password given to the participants. The website contained instructions for the participants, contact information of the researchers and a statement clarifying the participant's right to cease participation at any given time due to any feelings of discomfort. As mentioned, participants filled out the questionnaires on their computers through the internet after they were approached via a message posted on pro-eating disorders or pro-recovery oriented websites.

In order to be chosen, 1) The website had to include an "about" section which either stated that it was aimed at supporting individuals suffering from eating disorders or characterized itself as being "pro-eating disorders" website (mostly referred to as "pro-ana" or "pro-mia"); 2) The website had to contain some form of communica-

tion between users—a forum section, blogs section or online chat; and 3) The website had to enable posting a message that was visible to users (some websites prohibit conducting research on their community or even posting messages by someone who doesn't have eating disorders symptoms).

The message posted included a link and a password for the study's website. After reading the instructions and beginning the questionnaires part, participants could not go back and change answers given in a previous section and could not proceed to the next section without filling out all the questions in a section. After completing all the sections, participants were thanked and were given links to websites offering support and various treatment options for individuals suffering from eating disorders.

2.3. Measures

The independent variables of the study were object relations and quality of relationships with parents. The dependent variable was motivation to recover from eating disorders. These variables were measured through a number of questionnaires described below. Before beginning the questionnaires, all participants were assessed for eating disorders characteristics. In addition, participants were required to give some information about themselves (age, gender, height, current weight, and lowest, highest and ideal weight) and were asked if they considered themselves as having an eating disorder. Whether they answered yes or no, they were then asked if they wished to change their eating behaviors.

2.3.1. Dependent Variable—Motivation to Recover from Eating Disorders

Motivation for recovery was measured with the Anorexia Nervosa Stages Of Change Questionnaire (ANSOCQ) (Rieger, Touyz, & Beumont, 2002), based on the stages of change model described above by Prochaska and DiClemente (1982), and assesses the stage of change patients are in—pre-contemplation, contemplation, preparation, action or maintenance, regarding their anorexic symptomology. This instrument was chosen, since no data on the type of the participant's eating disorder were collected and the common materials on websites are more in-line with anorexic symptomology than bulimic symptomology.

The ANSOCQ is comprised of 20 items, each is followed by 5 statements corresponding to a different stage of recovery (1 - 5) and participants are asked to mark all of the statements they agree with for each item. An item is given the mean score of the statements marked and a total score for the ANSOCQ is the mean score for all 20 items, and represents the stage of change of the participant. Higher scores reflect more advanced stages of change. Several studies support the reliability and validity of the ANSOCQ (Ametller, Castro, Serrano, Martínez, & Toro, 2005; Rieger et al., 2000; Rieger et al., 2002). The instrument has a coefficient alpha of 0.95 and a one-week test-retest reliability coefficient of 0.91 (Rieger et al., 2000). The ANSOCQ was found reliable in the current study ($\alpha = 0.88$). In terms of validity, ANSOCQ scores have been found to be significantly associated with measures assessing related constructs (e.g. the University of Rhode Island Change Assessment Scale) and clinician assessments of patients' motivational level (Rieger et al., 2000). The ANSOCQ does not appear to be highly influenced by socially desirable responding, at least amongst adult patients (Rieger et al., 2000, Rieger & Touyz, 2006).

2.3.2. Independent Variables—Quality of Relationships with Parents and Object Relations

The quality of relationships with parents was measures with the Quality of Relationships Inventory (QRI) (Pierce, 1994), which contains 25 self-reported items assessing the quality of interpersonal relationships in 3 subscales. Participants were given the QRI twice—once regarding their relationship with their mother and once regarding their relationship with their father. Each item is given a score on a 4-point scale ranging from "not at all" (score of 1) to "very much" (score of 4). The "conflict" subscale assesses the extent to which the relationship is a source of conflict. The "depth" subscale assesses the perceived positivity and importance of the relationship. The "support" subscale assesses perceived availability of social support from the relationship. The QRI presents adequate internal consistency, construct validity, and reliability (Pierce, Sarason, Sarason, Solky-Butzel, & Nagle, 1997), and was found reliable in the current study ($\alpha = 0.71$ for mothers, $\alpha = 0.87$ for fathers).

Object relations were assessed with the Object Relations Inventory (ORI) (Blatt, Chevron, Quinlan, Schaffer, & Wein, 1988), based on cognitive developmental theory, which posits that object representation changes over development. Blatt described five levels of cognitive development that should correspond to an individual's representation of the object. These levels (sensorimotor, perceptual, external and internal iconic, and conceptual)

are based on the works of Piaget and Werner (Huprich & Greenberg, 2003). The ORI is an instrument in which participants are asked to give verbal descriptions of their mother and father. The descriptions given by the participants are later coded according to the scoring manual on 12 dimensions (affectionate, ambitious, malevolent-benevolent, cold-warm, degree of constructive involvement, intellectual, judgmental, negative-positive ideal, nurturant, punitive, successful, and strength) and then grouped in a way yielding 3 factors relating to the person described—"punitive", "benevolent" and "ambitious". Inter-rater reliabilities of the qualitative characteristic scores range between 0.45 and 0.93. In addition, 2 additional scores are given for "length of description" and "conceptual level of description". Scoring of the parent's descriptions was conducted by the researcher, according to Blatt's object relations inventory (ORI) manual (Blatt et al., 1988). Coding reliability in the practice stage reached satisfactory levels.

2.3.3. Assessing Disordered Eating Characteristics

Disordered eating characteristics were measured using the Eating Attitudes Test (EAT-26) and were used to screen for participants with disordered eating. EAT-26 is a validated, standardized self-report measure of symptoms and concerns characteristic of eating disorders (Garner, Olmsted, Bohr & Garfinkel, 1982). The EAT-26 is a refinement of the original EAT-40 first published in 1979 (Garner et al., 1982). The EAT-26 has been found to be highly reliable and valid with an accuracy rate of at least 90% when used to differentially diagnose those with and without disordered eating patterns (Mintz & O'Halloran, 2000). The scale was found reliable in the current study ($\alpha = 0.88$). EAT-26 is a 26-items questionnaire scored by the participants on a 6-point likert scale. Scores can range from 0 to 78. A score of 20 or higher indicates increased personal concerns about body weight, body shape, and eating concerns, and is considered the cut point for risk of disordered eating (Berger, Weitkamp, & Strauss, 2009; Sanderson et al., 2012).

3. Data Analysis Strategy

Analysis included participants who completed all the questions and scored above the cut point (20) on the EAT-26. 5 participants (6%) who didn't meet the criteria were excluded from analysis. Another 5 participants were excluded from analysis since they stated one or both of their parent's dead/missing and did not give any additional description of them.

Statistical analysis included two hierarchical regressions. Before testing the study's hypothesis a preliminary regression was conducted in order to estimate the extent to which quality of relationships with parents and dimensions of object relations contributed to eating disorders characteristics. Hence, a hierarchical regression predicting the "EAT-26" score was calculated. The regression comprised of 2 blocks. The first one included age and current weight, the second included the QRI scores for each parent (total of 6-mother support, mother conflict, mother depth, father support, father conflict, father depth) and ORI grouped scores for each parent description (total of 10 scores-punitive, benevolent, ambitious, length of description and conceptual level of description for each parent). All variables were entered in a stepwise method.

The second regression, predicting Anorexia Nervosa Stages of Change Questionnaire score, comprised of 3 blocks. The first block included age and current weight, the second included EAT-26 scores, and the third included QRI scores for each parent (total of 6-mother support, mother conflict, mother depth, father support, father conflict, father depth) and the ORI grouped scores for each parent description (total of 10 scores-punitive, benevolent, ambitious, length of description and conceptual level of description for each parent). All variables were entered in a stepwise method. In both regressions, missing data were handled by replacing missing values with the mean score of the specific variable (as found reliable by Rubin, Witkiewitz, Andre, & Reilly, 2007).

4. Results

4.1. General Characteristics of the Sample

Participants were all females aged 12 to 46 (M = 19.99, STD = 5.83), weighing 51 to 248 pounds (M = 127.52, STD = 27.06). Scores on EAT-26 ranged between 20 (as mentioned above participants receiving scores lower than 20 were excluded from the analysis) to 72 (M = 46.79, STD = 13.97) and ANSOCQ scores ranged between 1 to 3.51 (M = 1.69, STD = 0.52).

4.2. Predicting Disordered Eating Characteristics

The first hierarchical regression was conducted to examine the contribution of the ORI factors and the QRI factors for both parents to the EAT-26 score, controlling for age and weight. Results (shown in **Table 1**) show the regression is significant ($F(2, 76) = 6.347$, $p < 0.05$) with an overall R Square of 0.143. Neither age nor weight reached significance in predicting EAT-26 score. In the first step the ORI factor "Father benevolence-malevolence" was found to be a significant contributor (STD.Beta = −0.266, t = −2.501, $p < 0.05$) explaining 7.7% of the EAT-26 score variance. In the second step the QRI factor "Mother conflict" was found to be a significant contributor (STD.Beta = 0.258, t = 2.423, $p < 0.05$) adding 6.6% to the overall explained variance (F Change = 5.87, $p < 0.05$).

4.3. Predicting Motivation for Recovery

The second hierarchical regression was conducted to examine the contribution of the ORI factors and the QRI factors for both parents to the ANSOCQ score, controlling for age, weight and EAT-26 score. Results (shown in **Table 2**) show the regression is significant ($F(3, 75) = 12.213$, $p < 0.001$) with an overall R Square of 0.328. In the first step "age" was found to be a significant contributor (STD.Beta = 0.153, t = 1.586, $p < 0.05$), explaining 6.2% of the ANSOCQ score variance (F Change = 15.906, $p < 0.001$). In the second step, EAT-26 score was found to be a significant contributor (STD.Beta = −0.325, t = −3.302, $p < 0.01$) adding 16.2% to the explained ANSOCQ score variance. In the third step the QRI factor "Father Support" was found to be a significant contributor (STD.Beta = 0.336, t = 3.4, $p < 0.01$) adding 10.4% to the overall explained variance (F Change = 11.563, $p < 0.01$).

5. Discussion

This study was designed to assess the contribution of certain aspects of object relations and parental relationships specifically to the motivation to recover from eating disorders, in light of existing literature and theories suggesting that mental constructs regarding relationships as well as real relationships play a role in other aspects of eating disorders, such as development and outcome. In order to do that, females were approached both on websites glorifying eating disorders, in which motivation for recovery is known to be extremely low and on

Table 1. Hierarchical regression predicting EAT-26 score.

Model	Predictors	β	t	Sig	R^2	R^2 Change	F Change	Sig F Change
1	Father Benevolent (ORI)	−0.277	−2.533	0.013	0.077	0.077	6.418	0.013
2	Father Benevolent (ORI)	−0.266	−2.501	0.015				
	Mother Conflict (QRI)	0.258	2.243	0.018	0.143	0.066	5.87	0.018

ORI: Object relations inventory; QRI: Quality of relationships inventory. Hierarchical regression included age and weight in block 1, and all QRI and ORI variables in block 2.

Table 2. Hierarchical regression predicting ANSOCQ score.

Model	Predictors	β	t	Sig	R^2	R^2 Change	F Change	Sig F Change
1	Age	0.25	2.263	0.026	0.062	0.062	5.119	0.026
2	Age	0.197	1.931	0.057				
	EAT-26	−0.406	−3.988	0.000	0.225	0.162	15.906	0.000
3	Age	0.153	1.586	0.117				
	EAT-26	−0.325	−3.302	0.001				
	Father Support (QRI)	0.336	3.4	0.001	0.328	0.104	11.563	0.001

QRI: Quality of relationships inventory. Hierarchical regression included age and weight in block 1, EAT-26 score in block 2 and all QRI and ORI variables in block 3.

websites that are recovery-oriented in which motivation for recovery is presumably higher, trying to achieve a wide range of motivation for recovery. First, in trying to evaluate the contribution of object relations and relationships with parents to eating disorders characteristics, it was found that the ORI "Father malevolent-benevolent" scale, which is defined as the degree to which the father is conceived as disposed to doing good as opposed to having or expressing intense ill will, was related to level of eating disorders characteristics. The more the father was portrayed as having good intent or effect on others, the less the participant exhibited eating disorders characteristics. The second scale significantly related to eating disorders characteristics is the QRI "mother conflict" scale, which assesses the degree to which the relationship serves as a source of conflict in the eyes of the participant. The more the relationship with the mother was conceived as a source of conflicts, the more the participants exhibited eating disorders characteristics. These results are in line with previous studies stressing the importance of relationships and perceived relationships with parents in eating disorders characteristics (Jones et al., 2006; Swanson et al., 2010; Tantillo & Sanftner, 2003). The second analysis evaluated the extent to which quality of relationships with parents and object relations variables were related to the motivation to recover from eating disorders. It was found that, beyond the contribution of eating disorders characteristics and age, which, together, accounted for 16.2% of the variance, the QRI "Father Support" scale explained another 10.4% of the variance, meaning that the perceived availability of social support from the relationship with the father is positively associated with the motivation to recover. These results expand the findings of Jenkins and Ogden (2012), who found that in the eyes of recovered anorexics, social support from family members is an important part of the recovery process.

"Pro-anorexia" websites, as previously described, are places in which females who are reluctant to seek treatment are being further reinforced with respect thereto, and are potentially drawn deeper into eating disorders. The results of this study show that regardless of the severity of their disorder, the extent to which these females are feeling that the relationship with their father is a source for support can possibly have a partially balancing effect on their motivation to heal and seek help for their disorder. In light of the literature stressing the dangerous influence of "pro-anorexia" websites and the life-threatening consequences of eating disorders, this possibly balancing effect should not be taken lightly.

The findings presented here raise the question of the mother versus the father influence in the motivation for recovery. Evidence suggests that fathers and mothers of women with eating disorders have distinct interpersonal styles. For example, mother's over-protectiveness has been associated with anorexia nervosa (Walters & Kendler, 1995) and women suffering from bulimia report fathers who are rejecting (Stuart, Laraia, Ballenger, & Lydiard, 1990). Additionally, bulimic women's fathers have been described as showing less affection towards and demonstrating more control over their bulimic daughter than towards their siblings (Wonderlich, Ukestad, & Perzacki, 1994). From a more developmental perspective, fathers of bulimic women were seen as close to their daughters during early childhood, but distant during adolescence while a similar deterioration of the father-daughter relationship was not observed in the control group (Sights & Richards, 1984). These differences, possibly pointing to too-involved mothers and lack of involvement or distant fathers, might explain why recovery variables are more associated with the father-daughter relationship.

The results of this study highlight the supportive element in the father-daughter relationship, and as stated here, it is possible that the relationship with the father, as perceived by the daughter, is an important factor in enhancing the motivation for recovery. An additional hypothesis, based on the evidence regarding gender differences in child rearing, is that perhaps fathers offer a different type of support to their daughters than do mothers and the specific characteristics of support offered by fathers are more involved in the wish to recover. For example, studies examining parenting styles suggest that fathers' engagement with their children is more instrumental in nature and mothers' engagement with their children is more emotional in nature (Starrels, 1994). Some research has shown that adolescents perceive differently their relationships with their mothers and fathers, with mothers being viewed as providing care that stresses interpersonal relationships and fathers viewed as providing instrumental-oriented caretaking that stresses achievement (Richards, Gitelson, Petersen, & Hurtig, 1991). Others showed that adolescents view their fathers as fostering their autonomy more than their mothers (Kenny & Gallagher, 2002). In relation with eating disorders, a qualitative analysis examining the perceptions of mothers and fathers of anorexia patients during family therapy showed that the major gender difference is the tendency of mothers to express greater anxiety, whereas fathers produce more cognitive and detached accounts, with greater use of cognitive and avoidant coping strategies. In addition, fathers had more hope and faith in the outcome of treatment (Whitney et al., 2005). These differences in the care and support that mothers and fathers en-

gage in could arguably account for the results obtained in this study, showing the relationship with the father to be the important relationship variable in the motivation to recover. One could speculate, for example, that females with eating disorders, a condition often associated with a need for control, are more able to accept the sort of support offered by fathers, which is perhaps less emotionally demanding. It can also be argued, on the other hand, that the lack of an emotional satisfactory relationship with the father creates a deeper need for support from him, which can then enhance the motivation for recovery.

It is important to note that none of the object relations variables were found significant in predicting motivation for recovery, while one of them did reach significance in predicting eating disorders characteristics. It is possible that motivation for recovery is less influenced by more stable constructs such as object relations, than is the initial development of eating disorders' behaviors. The question whether developing an eating disorder is associated more with internal representations and the wish to recover from one is associated more with actual relationships, deserves further attention in the field.

Although this study approached females from recovery-oriented websites as well as from pro-eating disorders websites, the mean "stage of change" of the sample was low (M = 1.69) and scores were not highly distributed (STD = 0.52). This restricted range reduces the power of the statistical analysis. Under these conditions, reaching statistical significance is less likely, which might account for the lack of additional correlations with the motivation to recover. It is statistically reasonable that in a sample, which better represents higher stages of change, additional variables, which did not reach significance, may then become significant. In addition, given a more representative sample, the "father support" factor, which was found to explain approximately 10% of the variance of the "motivation for recovery", may explain a larger portion of it.

Over all, it seems that while both mother and father relationship variables account for the variance in eating disorders characteristics, only the relationship with the father is found to be an important predictor of the motivation to recover from eating disorders, specifically, the level of support in the relationship with the father . Interestingly, the scale of "father support" was related only to the motivation for recovery, and not to eating disorders characteristics. This suggests that "motivation for recovery" is an independent variable, comprised of different components than "eating disorders characteristics", meaning that the factors contributing to the eating disorders are not the same as the factors contributing to the wish and readiness to heal. The differentiation between these two constructs is important for future research and treatment.

5.1. Implications for Treatment

The results reported here may have significant implications for treatment. As mentioned above, the degree to which eating disordered patients are motivated to heal is an important factor in determining the effectiveness of treatment. Research in eating disorders suggests that assessing readiness to change before determining a treatment plan allows clinicians to better match patients to treatment modalities in the most cost-effective and time-efficient way possible (for example, Franko, 1997). In other populations, it has been shown that the match between patient's and therapist's expectations regarding treatment is important to the patient's motivation to change. Similar findings have emerged in eating disorders—collaborative treatment approaches were rated by both clients and therapists as more likely than directive treatment approaches to keep patients in treatment and to promote adherence with treatment recommendations (Geller, Brown, Zaitsoff, Goodrich, & Hastings, 2003). Motivational interviewing (Miller & Rollnick, 2002) was developed in order to address adherence problems and enhance readiness and motivation for recovery by, for example, combining elements of style (like warmth or empathy) and technique. Clinician stance is considered to be critical to motivational interviewing so that the therapist uses a curious, nonjudgmental approach and shows genuine interest in the patient's experience of the problem. Preliminary work on the efficacy of adaptations of MI to individuals with eating disorders has been promising (for example, Cassin, Von Ranson, Heng, Brar, & Wojtowicz, 2008; Dunn, Neighbors, & Larimer, 2006; Feld et al., 2001).

The results of the current study expand previous findings stressing the importance of the clinician's stance and issues of style and technique in motivational interviewing. According to the current findings, the relationship with the father is associated with more advanced stages of change. Therefore, focusing on the perceived father-patient relationship and re-conceptualization of supportive elements within that relationship may arguably increase the patient's motivation for recovery. In addition, it is possible that incorporating the father in the beginning of treatment, or during motivational interviewing, can be an effective way to increase motivation for recov-

ery as well. This study also showed that eating disorders characteristics are predicted by the ORI "Father benevolent" scale and the ORI "Mother conflict" scale. While working with fathers on their good will and intent seems less promising, working with mothers on the level of conflict within their relationships with their daughters may have positive effects on their daughter's eating disorders characteristics. The results of the current study might also have implications for families of non-diagnosed females taking part in pro-eating disorders websites, who are reluctant to seek professional help for their problem. Some of these, most often young girls, are in the process of developing some sort of an eating pathology and the findings here suggest a possible contribution of members of their families in the development of, and the reluctance to seek treatment for, those pathologies.

5.2. Limitations

The current study has a number of limitations. First, in order to guarantee the anonymity of participants, which is important in eating disorders research due to social desirability issues, it isn't possible to verify details given by the participants. On top of being voluntary, internet studies are limited to a population which uses the internet, possibly limiting the external validity of the study. However, it can be argued that the target population of this study is one which is highly likely to be internet users. Second, this is a correlative study and therefore it is not possible to conclude on causality in respect to the correlations which were found. There is research showing the effects of eating disorders on the relationships in the family (for example, Gilbert, Shaw, & Notar, 2000) suggesting that this direction should also be taken into account. Last, as mentioned above, the study employed the ANSOCQ (which is specifically anorexia nervosa oriented) due to lack of data on the participant's specific eating disorder, a fact which could produce biased results.

5.3. Future Directions

Future research should explore further the factors influencing the motivation for recovery from eating disorders, and specifically the role of close relationships and object relations. In addition, complementary research is needed in order to assess if and in what way the incorporation of the perceived and actual relationship with the father in motivational interviewing and the recovery process is efficient in increasing motivation for change. It is also worth exploring the basis for the relationship between Father's support and motivation for recovery.

References

Ainsworth, M. D. (1969). Object Relations, Dependency, and Attachment: A Theoretical Review of the Infant-Mother Relationship. *Child Development, 40,* 969-1025. http://dx.doi.org/10.2307/1127008

Ametller, L., Castro, J., Serrano, E., Martínez, E., & Toro, J. (2005). Readiness to Recover in Adolescent Anorexia Nervosa: Prediction of Hospital Admission. *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 46,* 394-400. http://dx.doi.org/10.1111/j.1469-7610.2004.00360.x

Aronson, J. K. (1986). The Level of Object Relations and Severity of Symptoms in the Normal Weight Bulimic Patient. *International Journal of Eating Disorders, 5,* 669-681. http://dx.doi.org/10.1002/1098-108X(198605)5:4<669::AID-EAT2260050407>3.0.CO;2-P

Balint, M. (1968). *The Basic Fault: Therapeutic Aspects of Regression*. London: Tavistock.

Bardone-Cone, A. M., & Cass. K. M. (2007). What Does Viewing a Pro-Anorexia Website Do? An Experimental Examination of Website Exposure and Moderating Effects. *International Journal of Eating Disorders, 40,* 537-548. http://dx.doi.org/10.1002/eat.20396

Becker, B., Bell, M., & Billington, R. (1987). Object Relations Ego Deficits in Bulimic College Women. *Journal of Clinical Psychology, 43,* 92-95. http://dx.doi.org/10.1002/1097-4679(198701)43:1<92::AID-JCLP2270430113>3.0.CO;2-Z

Bewell, C. V., & Carter, J. C. (2008). Readiness to Change Mediates the Impact of Eating Disorder Symptomatology on Treatment Outcome in Anorexia Nervosa. *The International Journal of Eating Disorders, 41,* 368-371. http://dx.doi.org/10.1002/eat.20513

Blake, W., Turnbull, S., & Treasure, J. (1997). Stages and Processes of Change in Eating Disorders: Implications for Therapy. *Clinical Psychology & Psychotherapy, 4,* 186-191. http://dx.doi.org/10.1002/(SICI)1099-0879(199709)4:3<186::AID-CPP128>3.0.CO;2-5

Blatt, S. J., Chevron, E. S., Quinlan, D. M., Schaffer, C. E., & Wein, S. (1988). *The Assessment of Qualitative and Structural Dimensions of Object Representations.* Unpublished Manuscript, New Haven, CT: Yale University.

Botta, R. A., & Dumlao, R. (2002). How Do Conflict and Communication Patterns between Fathers and Daughters Contri-

bute to or Offset Eating Disorders? *Health Communication, 14,* 199-219. http://dx.doi.org/10.1207/S15327027HC1402_3

Broberg, A. G., Hjalmers, I., & Nevonen, L. (2001). Eating Disorders, Attachment and Interpersonal Difficulties: A Comparison between 18- to 24-Year-Old Patients and Normal Controls. *European Eating Disorders Review, 9,* 381-396. http://dx.doi.org/10.1002/erv.421

Cassin, S. E., Von Ranson, K. M., Heng, K., Brar, J., & Wojtowicz, A. E. (2008). Adapted Motivational Interviewing for Women with Binge Eating Disorder: A Randomized Controlled Trial. *Psychology of Addictive Behaviors, 22,* 417-425. http://dx.doi.org/10.1037/0893-164X.22.3.417

Castro-Fornieles, J., Bigorra, A., Martinez-Mallen, E., Gonzalez, L., Moreno, E., Font, E., & Toro, J. (2011). Motivation to Change in Adolescents with Bulimia Nervosa Mediates Clinical Change after Treatment. *European Eating Disorders Review: The Journal of the Eating Disorders Association, 19,* 46-54. http://dx.doi.org/10.1002/erv.1045

Custers, K., & Van den Bulck, J. (2009). Viewership of Pro-Anorexia Websites in Seventh, Ninth and Eleventh Graders. *European Eating Disorders Review : The Journal of the Eating Disorders Association, 17,* 214-219. http://dx.doi.org/10.1002/erv.910

Drungaite, A. (2009). *Anorexia Nervosa: What Makes Patients Feel Better during the Illness and the Process of Recovery?* Thesis, Skövde: University of Skövde.

Dunn, E. C., Neighbors, C., & Larimer, M. E. (2006). Motivational Enhancement Therapy and Self-Help Treatment for Binge Eaters. *Psychology of Addictive Behaviors, 20,* 44-52. http://dx.doi.org/10.1037/0893-164X.20.1.44

Federici, A., & Kaplan, A. S. (2008). The Patient's Account of Relapse and Recovery in Anorexia Nervosa: A Qualitative Study. *European Eating Disorders Review: The Journal of the Eating Disorders Association, 16,* 1-10. http://dx.doi.org/10.1002/erv.813

Feld, R., Woodside, D. B., Kaplan, A. S., Olmsted, M. P., & Carter, J. C. (2001). Pretreatment Motivational Enhancement Therapy for Eating Disorders: A Pilot Study. *The International Journal of Eating Disorders, 29,* 393-400. http://dx.doi.org/10.1002/eat.1035

Franko, D. L. (1997). Ready or Not? Stages of Change as Predictors of Brief Group Therapy Outcome in Bulimia Nervosa. *Group, 21,* 39-45. http://dx.doi.org/10.1007/BF02872753

Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric Features and Clinical Correlates. *Psychological Medicine, 12,* 871-878. http://dx.doi.org/10.1017/S0033291700049163

Geller, J., Brown, K. E., Zaitsoff, S. L., Goodrich, S., & Hastings, F. (2003). Collaborative versus Directive Interventions in the Treatment of Eating Disorders: Implications for Care Providers. *Professional Psychology: Research and Practice, 34,* 406-413. http://dx.doi.org/10.1037/0735-7028.34.4.406

Geller, J., Drab-Hudson, D. L., Whisenhunt, B. L., & Srikameswaran, S. (2004). Readiness to Change Dietary Restriction Predicts Outcomes in the Eating Disorders. *Eating Disorders, 12,* 209-224. dhttp://dx.doi.org/10.1080/10640260490490438

Gilbert, A. A., Shaw, S. M., & Notar, M. K. (2000). The Impact of Eating Disorders on Family Relationships. *Eating Disorders, 8,* 331-345. http://dx.doi.org/10.1080/10640260008251240

Greenberg , J. R., & Mitchell, S. A. (1983). *Object Relations in Psychoanalytic Theory*. Cambridge, MA: Harvard University Press, 11-12.

Grissett, N. I., & Norvell, N. K. (1992). Perceived Social Support, Social Skills and Quality of Relationships in Bulimic Women. *Journal of Consulting and Clinical Psychology, 60,* 293-299. http://dx.doi.org/10.1037/0022-006X.60.2.293

Harper, K., Sperry, S., & Thompson, J. K. (2008). Viewership of Pro-Eating Disorder Websites: Association with Body Image and Eating Disturbances. *International Journal of Eating Disorders, 41,* 92-95. http://dx.doi.org/10.1002/eat.20408

Huprich, S. K., & Greenberg, R. P. (2003). Advances in the Assessment of Object Relations in the 1990s. *Clinical Psychology Review, 23,* 665-698. http://dx.doi.org/10.1016/S0272-7358(03)00072-2

Jenkins, J., & Ogden, J. (2012). Becoming "Whole" Again: A Qualitative Study of Women's Views of Recovering from Anorexia Nervosa. *European Eating Disorders Review, 20,* e23-e31. http://dx.doi.org/10.1002/erv.1085

Jett, S., La Porte, D. J., & Wanchisn, J. (2010). Impact of Exposure to Pro-Eating Disorder Websites on Eating Behavior in College Women. *European Eating Disorders Review: The Journal of the Eating Disorders Association, 18,* 410-416. http://dx.doi.org/10.1002/erv.1009

Jones, C. J., Leung, N., & Harris, G. (2006). Father-Daughter Relationship and Eating Psychopathology: The Mediating Role of Core Beliefs. *British Journal of Clinical Psychology, 45,* 319-330. http://dx.doi.org/10.1348/014466505X53489

Kenny, M. E., & Gallagher, L. A. (2002). Instrumental and Social/Relational Correlates of Perceived Maternal and Paternal Attachment in Adolescence. *Journal of Adolescence, 25,* 203-219. http://dx.doi.org/10.1006/jado.2002.0461

Kenny, M. E., & Hart, K. (1992). Relationship between Parental Attachment and Eating Disorders in an Inpatient and a Col-

lege Sample. *Journal of Counseling Psychology, 39,* 521-526. http://dx.doi.org/10.1037/0022-0167.39.4.521

McHugh, M. D. (2007). Readiness for Change and Short-Term Outcomes of Female Adolescents in Residential Treatment for Anorexia Nervosa. *The International Journal of Eating Disorders, 40,* 602-612. http://dx.doi.org/10.1002/eat.20425

Miller, W. R., & Rollnick, S. (2002). *Motivational Interviewing: Preparing People for Change* (2nd ed.). New York: Guilford Press.

Mintz, L. B., & O'Halloran, M. S. (2000). The Eating Attitudes Test: Validation with DSM-IV Eating Disorder Criteria. *Journal of Personality Assessment, 74,* 489-503. http://dx.doi.org/10.1207/S15327752JPA7403_11

Nordbø, R. H. S., Gulliksen, K. S., Espeset, E. M. S., Skårderud, F., Geller, J., & Holte, A. (2008). Expanding the Concept of Motivation to Change: The Content of Patients' Wish to Recover from Anorexia Nervosa. *The International Journal of Eating Disorders, 41,* 635-642. http://dx.doi.org/10.1002/eat.20547

Norris, M. L., Boydell, K. M., Pinhas, L., & Katzman, D. K. (2006). Ana and the Internet: A Review of Pro-Anorexia Websites. *International Journal of Eating Disorders, 39,* 443-447. http://dx.doi.org/10.1002/eat.20305

Pettersen, G., & Rosenvinge, J. H. (2002). Improvement and Recovery from Eating Disorders: A Patient Perspective. *Eating Disorders, 10,* 61-71. http://dx.doi.org/10.1002/erv.425

Pierce, G. R. (1994). The Quality of Relationships Inventory: Assessing the Interpersonal Context of Social Support. In B. R. Burleson, & T. L. Albrecht (Eds.), *Communication of Social Support: Messages, Interactions, Relationships, and Community* (pp. 247-266). Newbury Park, CA: Sage.

Pierce, G. R., Sarason, I. G., Sarason, B. R., Solky-Butzel, J. A., & Nagle, L. C. (1997). Assessing the Quality of Personal Relationships. *Journal of Social and Personal Relationships, 14,* 339-356. http://dx.doi.org/10.1177/0265407597143004

Pollack, D. L., & Keaschuk, R. A. (2008). The Object Relations of Bulimic Women in Context: An Integration of Two Studies. *Eating Disorders, 16,* 14-29. http://dx.doi.org/10.1080/10640260701667920

Prochaska, J. O., & Di Clemente, C. C. (1992). The Transtheoretical Approach. In *Handbook of Psychotherapy Integration* (pp. 147-171). Oxford: Oxford University Press.

Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical Therapy: Toward a More Integrative Model of Change. *Psychotherapy: Theory, Research & Practice, 19,* 276-288. http://dx.doi.org/10.1037/h0088437

Richards, M. H., Gitelson, I. B., Petersen, A. C., & Hurtig, A. L. (1991). The Role of Mothers and Fathers. *Psychology of Women Quarterly, 15,* 65-81. http://dx.doi.org/10.1111/j.1471-6402.1991.tb00478.x

Rieger, E., & Touyz, S. (2006). An Investigation of the Factorial Structure of Motivation to Recover in Anorexia Nervosa Using the Anorexia Nervosa Stages of Change Questionnaire. *European Eating Disorders Review, 14,* 269-275. http://dx.doi.org/10.1002/erv.684

Rieger, E., Touyz, S. W., & Beumont, P. J. V. (2002). The Anorexia Nervosa Stages of Change Questionnaire (ANSOCQ): Information Regarding Its Psychometric Properties. *The International Journal of Eating Disorders, 32,* 24-38. http://dx.doi.org/10.1002/eat.10056

Rieger, E., Touyz, S., Schotte, D., Beumont, P., Russell, J., Clarke, S., Kohn, M. et al. (2000). Development of an Instrument to Assess Readiness to Recover in Anorexia Nervosa. *The International Journal of Eating Disorders, 28,* 387-396. http://dx.doi.org/10.1002/1098-108X(200012)28:4<387::AID-EAT6>3.0.CO;2-Y

Rothschild-Yakar, L., Levy-Shiff, R., Fridman-Balaban, R., Gur, E., & Stein, D. (2010). Mentalization and Relationships with Parents as Predictors of Eating Disordered Behavior. *The Journal of Nervous and Mental Disease, 198,* 501-507. http://dx.doi.org/10.1097/NMD.0b013e3181e526c8

Rubin, L. H., Witkiewitz, K., Andre, J. S., & Reilly, S. (2007). Methods for Handling Missing Data in the Behavioral Neurosciences: Don't Throw the Baby Rat out with the Bath Water. *The Journal of Undergraduate Neuroscience Education, 5,* A71-A77.

Rushford, N. (2006). Readiness to Recover in Anorexia Nervosa: What Does It Depend on in Female Inpatients? *European Eating Disorders Review, 14,* 388-396. http://dx.doi.org/10.1002/erv.732

Sanderson, S., Raab, S., & Moch, P. (2012). BMI and EAT-26, Predictors for Low BMD? *SAGE Open, 2*. http://dx.doi.org/10.1177/2158244012441604

Sights, J. R., & Richards, H. C. (1984). Parents of Bulimic Women. *International Journal of Eating Disorders, 3,* 3-13. http://dx.doi.org/10.1002/1098-108X(198422)3:4<3::AID-EAT2260030402>3.0.CO;2-3

Starrels, M. E. (1994). Gender Differences in Parent-Child Relations. *Journal of Family Issues, 15,* 148-165. http://dx.doi.org/10.1177/019251394015001007

Steiger, H., & Houle, L. (1991). Defense Styles and Object-Relations Disturbances among University Women Displaying Varying Degrees of "Symptomatic" Eating. *International Journal of Eating Disorders, 10,* 145-153.

http://dx.doi.org/10.1002/1098-108X(199103)10:2<145::AID-EAT2260100203>3.0.CO;2-D

Stockford, K., Turner, H., & Cooper, M. (2007). Illness Perception and Its Relationship to Readiness to Change in the Eating Disorders: A Preliminary Investigation. *British Journal of Clinical Psychology, 46,* 139-154. http://dx.doi.org/10.1348/014466506X115786

Stuart, G. W., Laraia, M. T., Ballenger, J. C., & Lydiard, R. B. (1990). Early Family Experiences of Women with Bulimia and Depression. *Archives of Psychiatric Nursing, 4,* 43-52.http://dx.doi.org/10.1016/S0883-9417(05)80010-X

Swanson, H., Power, K., Collin, P., Deas, S., Paterson, G., Grierson, D., Yellowlees, A. et al. (2010). The Relationship between Parental Bonding, Social Problem Solving and Eating Pathology in an Anorexic Inpatient Sample. *European Eating Disorders Review : The Journal of the Eating Disorders Association, 18,* 22-32. http://dx.doi.org/10.1002/erv.967

Tantillo, M., & Sanftner, J. (2003). The Relationship between Perceived Mutuality and Bulimic Symptoms, Depression and Therapeutic Change in Group. *Eating Behaviors, 3,* 349-364. http://dx.doi.org/10.1016/S1471-0153(02)00077-6

Treasure, J. L., Katzman, M., Schmidt, U., Troop, N., Todd, G., & De Silva, P. (1999). Engagement and Outcome in the Treatment of Bulimia Nervosa: First Phase of a Sequential Design Comparing Motivation Enhancement Therapy and Cognitive Behavioral Therapy. *Behavior Research and Therapy, 37,* 405-418. http://dx.doi.org/10.1016/S0005-7967(98)00149-1

Wade, T. D., Frayne, A., Edwards, S.-A., Robertson, T., & Gilchrist, P. (2009). Motivational Change in an Inpatient Anorexia Nervosa Population and Implications for Treatment. *The Australian and New Zealand Journal of Psychiatry, 43,* 235-243. http://dx.doi.org/10.1080/00048670802653356

Walters, E. E., & Kendler, K. S. (1995). Anorexia Nervosa and Anorexic-Like Syndromes in a Population-Based Female Twin Sample. *The American Journal of Psychiatry, 152,* 64-71.

Ward, A., Troop, N., Todd, G., & Treasure, J. (1996). To Change or not to Change: "How" Is the Question? *British Journal of Medical Psychology, 69,* 139-146.http://dx.doi.org/10.1111/j.2044-8341.1996.tb01858.x

Whitney, J., Murray, J., Gavan, K., Todd, G., Whitaker, W., & Treasure, J. (2005). Experience of Caring for Someone with Anorexia Nervosa: Qualitative Study. *The British Journal of Psychiatry : The Journal of Mental Science, 187,* 444-449. http://dx.doi.org/10.1192/bjp.187.5.444

Wilson, J. L., Peebles, R., Hardy, K. K., & Litt, I. F. (2006). Surfing for Thinness: A Pilot Study of Pro-Eating Disorder Web Site Usage in Adolescents with Eating Disorders. *Pediatrics, 118,* e1635-e1643. http://dx.doi.org/10.1542/peds.2006-1133

Winnicott, D. W. (1974). Fear of Breakdown. *International Review of Psycho-Analysis, 1,* 103-107.

Wolk, S. L., & Devlin, M. J. (2001). Stage of Change as a Predictor of Response to Psychotherapy for Bulimia Nervosa. *The International Journal of Eating Disorders, 30,* 96-100. http://dx.doi.org/10.1002/eat.1058

Wonderlich, S., Ukestad, L., & Perzacki, R. (1994). Perceptions of Nonshared Childhood Environment in Bulimia Nervosa. *Journal of the American Academy of Child and Adolescent Psychiatry, 33,* 740-747. http://dx.doi.org/10.1097/00004583-199406000-00015

Scientific Research

www.scirp.org

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

Other selected journals from SCIRP are listed as below. Submit your manuscript to us via either submit@scirp.org or Online Submission Portal.