



# Associations between pathological eating, relational attitudes and satisfaction in romantic relationships

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## Abstract

**Objective** Women with disordered eating report low satisfaction from romantic relationships. We wished to examine whether this may be explained in part by a restricted or inflated sense of relational entitlement, pathological concern and low authenticity levels.

**Method** A community sample of 170 women aged 18–60 ( $M = 24.89 + 6.22$ ), who had experienced a meaningful romantic relationship, completed questionnaires online. These included measures of disordered eating (EDE-Q), sense of relational entitlement (SRE-R), pathological concern (PCQ), relational authenticity (AIRS) and basic relational needs satisfaction (BNSRS). Structural equation model (SEM) was employed to assess the mediating effect of the SRE-R, PCQ and AIRS on the association between ED symptoms and BNSRS.

**Results** Participants with high EDE-Q scores tended to score high on inflated and restricted SRE-R, PCQ, AIRS and BNSRS. SRE-R, PCQ and AIRS scores mediated the negative association between EDE-Q and BNSRS scores.

**Conclusions** An imbalanced sense of relational entitlement, pathological concern and inauthenticity seem to underlie the dissatisfaction that women with disordered eating experience from romantic relationships. Since these relational characteristics seem to take a high toll on the intimate relationships, it is important to encourage healthy eating attitudes and assertiveness within romantic relationships, in life and in therapy.

**Level of evidence** Level III: evidence obtained from well-designed cohort or case–control analytic studies

**Keywords** Disordered eating · Satisfaction in romantic relationships · Sense of relational entitlement · Pathological concern · Authenticity

## Introduction

A significant association between relationship dissatisfaction and eating and body image problems has consistently been found in research with non-clinical populations. Specifically, people with disordered eating [1, 2] and body dissatisfaction [3] tend to report low satisfaction in romantic relationships. Little is known about the specific relational contexts that influence or are influenced by eating problems, and it is important to understand the dynamics underlying this association so as to identify points of potential change and develop interventions to increase satisfaction.

Sources of discontent in romantic relationships for women with disordered eating include negative body talk with a romantic partner, which has been found to be related to drive for thinness, dieting and bulimic behaviors [4] and sexual difficulties [5]. Juda et al. [6] found that undergraduate women in a romantic relationship who perceived low

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levels of support from their partners reported more dieting symptomatology than those who perceived higher levels of support [6].

We speculated that another factor underlying the relationship difficulties experienced by women with disordered eating may be related to specific interpersonal characteristics and attitudes that challenge connection and intimacy. In this study, we examine the connection between pathological eating and specific relational attitudes in a non-clinical population.

## Pathological concern

Hartmann et al. [7] described a tendency to be unduly nurturing and accommodating, dependent and socially avoidant. Barbanel [8] described “caretaker personality disorder” in individuals who totally devote themselves to others. This inclination of people to relinquish their own interests to serve those of others has also been termed “selflessness” or “pathological altruism” and is well documented [9, 10]. Selflessness levels have been found to be associated with eating pathology in a clinical and non-clinical population [11] and to predict disordered eating [12].

Tolmacz et al. [13] called this characteristic “pathological concern”, stressing that far from being a monolithic concept, concern for others is influenced by multiple motives and mental representations of the self and others. Whereas “healthy” concern involves caring for self in addition to caring for others, pathological concern involves compulsive concern for others’ welfare while denying one’s own feelings and needs [8]. In intersubjective terms, the self is experienced as an object and other people as subjects. This kind of concern appears to be characterized by (a) repression and denial of self-related needs, and (b) overinvestment in satisfying others’ needs ([14]). It can be understood as a maladaptive strategy to bolster a fragile self-esteem and interpersonal relationships. Pathological concern [13] has been linked with attachment insecurities, low self-esteem and well-being, emotional and interpersonal difficulties [14], covert narcissism [15], hyper-sexuality [16] and low psychological need fulfillment, self-compassion and self-awareness [17]. In this study, we investigate a possible association with disordered eating.

## Sense of entitlement

Sense of relational entitlement was traditionally understood in pathological terms, as a criterion for a narcissistic personality disorder [18] or psychopathy [19]. It has been reconceptualized in terms of attachment theory as a component of our internal working models that is not necessarily

pathological and influences us throughout the lifespan, especially in the context of intimate relationships [20]. *Assertive* or adaptive entitlement involves the ability to realistically appraise expectations from others and be assertive. Sense of entitlement becomes excessive or *inflated* if a person expects unconditional and complete need fulfillment, or *restricted* if needs and wishes are regarded as illegitimate and unworthy of being expressed.

Since intense expectations of give and take, need fulfillment and deservedness frequently arise in romantic relationships, entitlement issues are highly relevant in this context. Research has shown both inflated and restricted relational entitlement to be associated positively with divorce [21] and negatively with couple satisfaction [22] and marital adjustment [23]. An association was found between an inflated sense of entitlement and abusive romantic relationships [24].

To the best of our knowledge, an association between sense of relational entitlement and disordered eating has not previously been investigated. However, an imbalanced sense of relational entitlement (inflated or restricted) has been linked to insecure attachment [23], which has been linked to disordered eating [25].

## Authenticity

Authenticity refers to behavior consistent with feelings, attitudes and beliefs and involves being genuine in connections to others [26]. Authenticity predicted subjective happiness [27], life satisfaction [28], self-esteem [29] and lack of depression [30]. High levels are related to positive interactions and satisfaction with personal relationships [31], whereas low levels are associated with a lack of trust, commitment and satisfaction [32].

Authenticity has been linked to satisfaction in romantic relationships [33], and predicts coping strategies emphasizing concern for both self and others [34]. Since women with high levels of disordered eating tend to subjugate their personal needs to those of others [11], we expected them to show low authenticity in romantic relationships.

## The current study

The purpose of this study was to examine associations between disordered eating, basic need satisfaction in romantic relationships, imbalanced sense of relational entitlement, pathological concern and authenticity in a community sample of young Israeli women. Based on the literature presented above, we hypothesized the following:

- (1) Disordered eating and basic need satisfaction in romantic relationships would be significantly and negatively associated with each other;
- (2) disordered eating would be associated positively with imbalanced (inflated and restricted) sense of relational entitlement and pathological concern, and negatively with authenticity in relationships;
- (3) imbalanced (inflated and restricted) sense of relational entitlement would be associated positively with pathological concern and negatively with authenticity and basic need satisfaction in romantic relationships; and
- (4) sense of relational entitlement, pathological concern and authenticity would mediate the relationship between disordered eating and basic need satisfaction in romantic relationships.

## Methods

### Participants

Participants in the study were 170 Israeli women aged 18–60 ( $M = 24.89 + 6.22$ ). Most (75.3%) were between age 18 and 25, 17.6% were between age 25 and 35 and the 7.1% were between 35 and 60. All participants reported being involved in a meaningful, exclusive romantic relationship for at least 1 year. Approximately half were married or living together. Some were recruited via the social media (WhatsApp, Facebook) and others were undergraduate students who received class credit in exchange for participation. Their BMIs ranged between 13.26 and 35.14 ( $M = 29.95 + 3.23$ ). Most participants (71.6%) had a BMI between 19 and 25, with 13.6% below 19 and 12.4% above 25. Only 2.4% (4 participants) had a BMI of over 30. The vast majority (94.7%) were born in Israel. Most (65.9%) had high school education, 23.6% had an undergraduate degree and 11% a master's degree. Half (50%) were single and half married or cohabitating with a partner. Approximately one third (34.7%) had a low socio-economic background.

### Measures

(1) Disordered eating (eating disorder symptoms) was measured using the Eating Disorder Examination – Questionnaire (EDE-Q) [35]. The EDE-Q contains 28 items covering core ED symptoms and related variables and includes the following four subscales: Restraint, Eating Concern, Shape Concern and Weight Concern. For the Hebrew translation, Shape and Weight Concern form a single factor [36]. Twenty-two items were scored on a 7-point Likert scale. The other six items require an open numerical response and are excluded from scoring. In this study Cronbach's  $\alpha$  was 0.95.

(2) To assess sense of entitlement, participants completed the Revised Sense of Relational Entitlement scale (SRE-R), a short version of the Revised Sense of Relational Entitlement scale (SRE) [23] that asks about romantic relationships. The SRE-R was written in Hebrew and is psychometrically sound [37]. The seven-item restricted SRE-R subscale evaluates a restricted sense of entitlement and the eight-item inflated subscale an inflated sense of entitlement. Responses were scored on a 5-point Likert type scale. In this study Cronbach's  $\alpha$ s were 0.85 (restricted) and 0.95 (inflated).

(3) Pathological concern was assessed using the Pathological Concern Questionnaire (PCQ) [14]. The PCQ has 18 items and examines thoughts, feelings and behaviors related to two facets of pathological concern: (1) repression and denial of needs; and (2) excessive investment in satisfying others' needs. Responses were scored on a 7-point Likert type scale. The questionnaire was written in Hebrew and showed good reliability and validity [14]. In this study Cronbach's  $\alpha$  was 0.90.

(4) Authenticity in romantic relationships was assessed with the Authenticity in Relationships Scale (AIRS) [38]. The 21-item AIRS examines thoughts and feelings about the following: (1) Intimate Risk Taking, involving disclosure to a romantic partner; and (2) Unacceptability of Deception, or opposition to a lack of unauthenticity. Items were scored on a 9-point Likert type scale. It is reliable and valid Lopez and Rice [38] and has been translated into Hebrew [39]. In this study Cronbach's  $\alpha$  was 0.91.

(5) Satisfaction of basic relational needs was measured by the Basic Need Satisfaction in Relationships Scale (BNSRS) [40]. This questionnaire measures the extent to which the respondent feels his/her needs are met in a romantic relationship. Answers were scored on a 7-point Likert type scale. A Hebrew translation has been validated [41]. Cronbach's  $\alpha$  in this study was 0.87.

### Procedure

The study was approved by the Ethics Committee of the Ruppin Academic Center. Questionnaires were administered online via Qualtrics ([www.qualtrics.com](http://www.qualtrics.com)). On the first screen, a short explanation was provided, and participants provided informed consent (See Appendix).

### Statistical analyses

We first conducted a preliminary analysis of the descriptive statistics of all study indices. Pearson correlations described associations between variables, and SEM was used to assess the mediating effect of the SRE-R, PCQ and AIRS on the association between EDE-Q and BNSRS scores. All analyses were tested for statistical significance at the  $p < 0.05$

level. A Structural Equation Model (SEM) was built following the recommendations of Hayes [42]. As a combined acceptance rule, we chose generally accepted values: normed fit index (NFI) > 0.90 [43] and root mean square error of approximation (RMSEA) < 0.08 [44]. Statistical Package for the Social Sciences (SPSS, version 23) and AMOS 23 were used for the analyses.

## Results

Means and standard deviations of all study measures are presented in Table 1. EDE-Q scores ranged between 0 and 4.82. The scores of only 11 (6.5%) of participants were over the cutoff of 4 that indicates a high probability of a clinical ED [35]. A MANOVA comparing scores for all study variables (excluding EDE-Q) between participants with EDE-Q scores above and below 4 revealed no significant differences, possibly because there were only 11 participants with scores above 4.

**Table 1** Means and standard deviations of measures used in the study

Measure	Mean	SD
SRE-R Inflated	2.30	0.82
SRE-R Restricted	1.78	0.77
PCQ	2.63	1.02
AIRS	5.83	0.86
BNSRS	6.20	0.78
EDE-Q Restraint	2.38	1.77
EDE-Q Eating Concern	1.14	1.24
EDE-Q Shape and weight concern	2.62	1.66
EDE-Q total	1.89	1.23

*SRE-R* sense of relational entitlement-revised, *PCQ* pathological concern questionnaire, *AIRS* authenticity in relationships scale; *BNSRS* basic need satisfaction in relationships scale, *EDE-Q* eating disorders examination-questionnaire total score

**Table 2** Pearson correlations between sense of entitlement, ED symptoms, pathological concern, relationship authenticity and relationship satisfaction ( $n = 170$ )

	EDE-Q	Inflated	Restricted	PCQ	AIRS	BNSRS
EDE-Q						
Inflated	0.22**					
Restricted	0.13*	0.35***				
PCQ	0.33***	0.69***	0.36***			
AIRS	-0.15*	-0.46***	-0.40***	-0.55***		
BNSRS	-0.16*	-0.48***	-0.33***	-0.60***	0.73***	

*EDE-Q* eating disorders examination questionnaire, *Inflated* inflated sense of relational entitlement (SRE-R), *Restricted* restricted sense of relational entitlement (SRE-R), *PCQ* pathological concern questionnaire, *AIRS* = authenticity in relationships scale, *BNSRS* = basic need satisfaction in relationships scale

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$

Bulimic behaviors were reported to have occurred on 0–27.3 out of the past 28 days, with a mean of 4.23 days (SD = 5.02). Five participants reported vomiting as a means of purging and three reported using other methods of purging. Forty-seven participants (27.6%) reported exercising excessively to reduce body weight and increase body satisfaction. Vomiting, other means of purging and excessive exercise were reported to have occurred on 0–28 out of the past 28 days, with means of 0.29, 0.22 and 2.32 days (SD = 2.34, 2.35, 5.55), respectively.

Hypotheses 1, 2 and 3: (1) Disordered eating (EDE-Q) and basic need satisfaction in romantic relationships (BNSRS) would be negatively associated; disordered eating (EDE-Q) would be associated positively with imbalanced (inflated and restricted) sense of relational entitlement (SRE-R) and pathological concern (PCQ), and negatively with authenticity (AIRS); imbalanced (inflated and restricted) sense of relational entitlement (SRE-R) would be associated positively with pathological concern (PCQ) and negatively with authenticity (AIRS) and basic need satisfaction in romantic relationships (BNSRS).

Associations between EDE-Q, imbalanced SRE-R, PCQ, AIRS and BNSRS scores were assessed by Pearson correlations (Table 2). EDE-Q scores correlated positively and significantly with inflated and restricted SRE-R and PCQ scores and negatively with AIRS and BNSRS scores. Imbalanced (inflated and restricted) SRE-R scores correlated positively and significantly with PCQ and negatively with AIRS and BNSRS scores.

Hypothesis 4: Sense of relational entitlement (SRE-R), pathological concern (PCQ) and authenticity (AIRS) would mediate the relationship between disordered eating (EDE-Q) and basic need satisfaction in romantic relationships (BNSRS).

Our central aim was to build a comprehensive model depicting the relationships between EDE-Q, SRE-R, PCQ, AIRS and BNSRS scores. A SEM was designed following

the recommendations of Hayes [42]. As a combined acceptance rule, we chose generally accepted values: normed fit index (NFI) > 0.90 [43] and root mean square error of approximation (RMSEA) < 0.08 [44] (see Fig. 1). The Chi Square goodness-of-fit index presented an excellent fit, ( $\chi^2_{(5)}=5.52, p=0.36$ ; NFI = 0.99; CFI = 0.99; RMSEA = 0.03; standardized root means square residual (RMR) = 0.02).

As can be seen from Fig. 1, disordered eating (EDE-Q) was not significantly associated with basic need satisfaction in romantic relationships (BNSRS) directly. However, they were positively associated with inflated sense of entitlement (SRE-R) and pathological concern (PCQ). We left the path between EDE-Q and restricted SRE-R scores in the model, despite the weak correlation ( $p < 0.10$ ). Pathological concern (PCQ) and restricted sense of entitlement (SRE-R) each were negatively and significantly associated with authenticity (AIRS), which were both positively and significantly associated with relationship satisfaction (BNSRS). Pathological concern (PCQ) was also negatively associated with relationship satisfaction (BNSRS). Pathological concern (PCQ) and authenticity (AIRS) fully

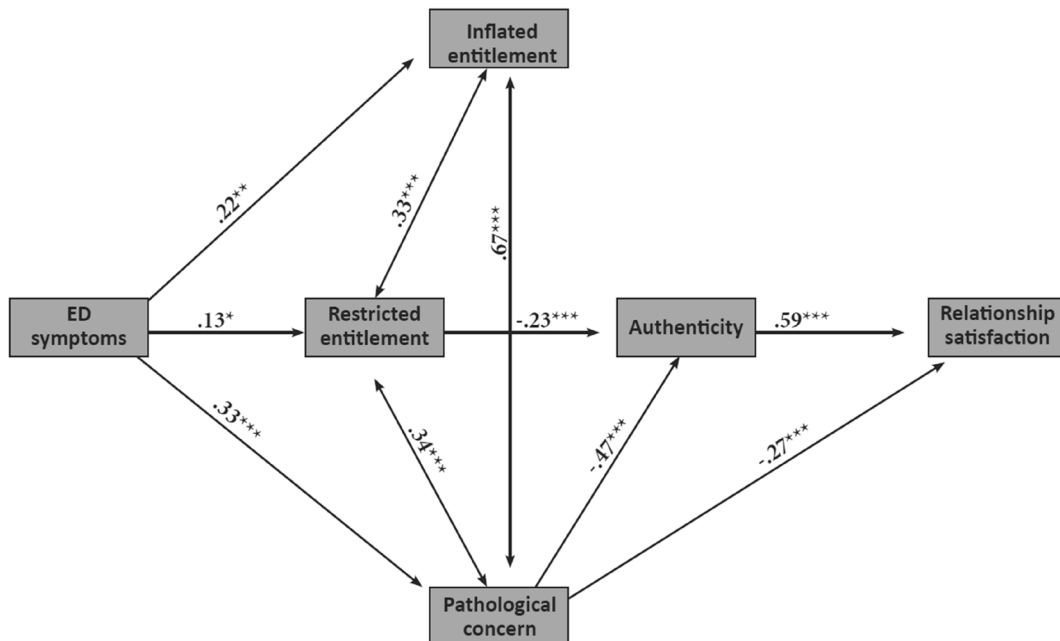
mediated the association between ED symptoms (EDE-Q) and satisfaction in romantic relationships (BNSRS).

### Discussion

As hypothesized, the romantic relationships of young women with relatively higher levels of disordered eating were characterized by a restricted or inflated sense of relational entitlement, pathological concern and lack of authenticity. These features helped to explain the dissatisfaction that women with some level of disordered eating experience in their couple relationships.

### EDE-Q, BNSRS and relational attitudes

The negative association between disordered eating and basic need satisfaction in romantic relationships in a non-clinical sample replicates previous findings and highlights the difficulties that women with disordered eating experience in their romantic relationships [2]. This association, while statistically significant, was relatively weak. Experience in a romantic relationship was an inclusion criterion, so participants' disordered eating was not severe enough to rule



Note: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . ED symptoms = EDE-Q; Inflated entitlement = SRE-R; Restricted entitlement = SRE-R; Pathological concern = PCQ; Authenticity = AIRS; Relationship satisfaction = BNSRS

**Fig. 1** SEM model depicting the relationships between ED symptoms (EDE-Q), sense of relational entitlement (SRE-R), pathological concern (PCQ), authenticity (AIRS) and basic need satisfaction in romantic relationships (BNSRS). \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ . ED

symptoms = EDE-Q; Inflated entitlement = SRE-R; Restricted entitlement = SRE-R; Pathological concern = PCQ; Authenticity = AIRS; Relationship satisfaction = BNSRS

out a couple relationship. Wider variance in EDE-Q scores, for example in a clinical sample, may have led to a stronger correlation.

We examined how three major relational attitudes, a sense of relational entitlement, pathological concern and authenticity, influenced the connection between disordered eating and basic need satisfaction in romantic relationships in a community sample. We found positive associations between disordered eating and both inflated and restricted relational entitlement. Our findings suggest that subjectively, women with relatively disordered eating attitudes tend to feel either entitled to have all their needs met, or unentitled to express them or have them met. Both forms of entitlement are maladaptive and have been linked to negative mood, emotional distress and low well-being [45]. Future research should replicate this finding and explore what distinguishes women with disordered eating and inflated relational entitlement from those with restricted relational entitlement.

We also found an association between disordered eating and pathological concern in romantic relationships, echoing and extending what we know about the tendency of women with disordered eating to ignore their own needs and favor those of others [11]. People with high pathological concern profoundly lack a sense of autonomy, competence and relatedness, tend to have a fragile self-image and are anxious about rejection [17, 46]. The need of women with disordered eating to overinvest in their romantic partners can therefore perhaps be understood as a compulsive strategy to bolster a shaky sense of worth [47] and to try to avoid abandonment and loneliness [8].

Authenticity is a precondition for healthy interpersonal relationships [38] and predicts satisfaction in romantic relationships [33]. Since people with disordered eating face challenges to their self-esteem [47] and interpersonal relationships, the negative association observed between disordered eating and relational authenticity is hardly surprising. Since being authentic involves exposing one's vulnerabilities and imperfections, it involves risk-taking [26]. This risk may feel prohibitively high to women with disordered eating, who feel high levels of shame [48].

Results are correlational, so we cannot infer causality. Disordered eating may cause distress, leading to imbalanced relational attitudes as a maladaptive coping mechanism. Alternatively, these attitudes may confer risk for the development of disordered eating or play a role in their development. Another possibility is that other factors, like genetics or specific life events, confer risk for the development of both disordered eating and imbalanced relational attitudes. Moreover, a vicious circle seems likely, with complex two-way influences and interactions. Longitudinal research should examine the chronological emergence of the components of our proposed model. Prevention interventions

could consider addressing relational attitudes as a potential avenue for the prevention of disordered eating.

Relational attitudes may also be related to symptoms of other psychiatric disorders, and the specificity of their connection with disordered eating should, therefore, be examined in future research. Previous research has shown that relational attitudes are in fact relevant to psychological problems in sub-clinical samples. For example, symptoms of relational obsessive–compulsive disorder were found to be associated with relationship/sexual dissatisfaction and relationship violence [49, 50] and pathological concern was found to be associated with narcissistic vulnerability [15] and compulsive sexual behavior [16]. In addition, since insecure attachment styles have been found to be associated with disordered eating, inflated and restricted sense of relational entitlement, lack of authenticity and lack of need satisfaction [51] Mikulincer & Shaver, 2016], future research should explore how attachment orientations relate to the variables examined in this study.

### Mediation hypothesis

In our non-clinical sample, a sense of relational entitlement, pathological concern and authenticity mediated the negative association between disordered eating and basic need satisfaction in romantic relationships. In the SEM model based on our data, the correlation originally observed between ED symptoms and basic relational need satisfaction no longer reaches significance. The direct pathway between disordered eating and restricted sense of entitlement tended towards but did not reach significance, and the significant links originally observed between relational authenticity and both disordered eating and an inflated sense of entitlement disappeared. Nevertheless, the block of relational attitudes, as a whole, fully mediated the connection between disordered eating and relational satisfaction and, therefore, provides an alternative explanation for a lack of relational needs satisfaction.

Pathological concern seems to be driving much of this mediation effect, via direct links to other variables. This tendency of people with relatively high levels of disordered eating to be overly nurturing and accommodating of others while relinquishing their own interests thus seems to take a heavy toll on relationship satisfaction. In the model, pathological concern was positively associated with both inflated and restricted sense of relational entitlement. This finding is in line with previous studies showing that both forms of entitlement are linked to poor couple relationships [23]. People with an imbalanced sense of entitlement have trouble exhibiting concern for self and other when both are experienced as subjects, because of a lack of mutuality necessary for a healthy sense of concern [14].

The association between pathological concern and restricted sense of relational entitlement seems intuitive, since we would expect a tendency to doubt the legitimacy of one's needs to lead to an over-nurturing and over-accommodating attitude towards one's partner. Yet the observed association between pathological concern and inflated sense of relational entitlement seems less intuitive. It is plausible that while pathological concern is a maladaptive strategy to overcome low self-esteem, in many cases it is driven by a deep sense of injustice. This may lead to a compensatory, over-demanding stance masking unexpressed frustration and anger. Indeed, a profound sense of entitlement was included as a characteristic of "caretaker personality disorder" [8].

Authenticity within relationships was directly fed in our model by pathological concern and restricted sense of entitlement. Both these characteristics may lead people to focus on others' needs as a defense against facing the interpersonal risk needed to be authentic [26].

### Limitations

This study has several limitations. First, it was conducted with a non-clinical sample of young Jewish, Israeli women, who had basically healthy eating attitudes. Future studies should examine the replicability and generalizability of results to clinical samples, and other genders, sexual orientations, ages and cultural, ethnic and religious groups. Second, sense of relational entitlement, pathological concern, authenticity and need satisfaction in dyadic interactions were measured via self-report questionnaires. Future studies should measure them in real-life settings and assess relational appraisals and behaviors in ongoing couple interactions. Third, these concepts were examined in relation to disordered eating but not to symptoms of psychopathologies other than eating disorders. The specificity of these associations to disturbed eating should be investigated. Finally, data was collected from one partner at one point in time. Associations should be examined in both partners and tested for stability over time and throughout different phases of shared life, such as pregnancy, parenthood and stressful situations.

### Conclusions and implications

Overall, our findings suggest that women with disordered eating experience problems in romantic relationships, partly because of their propensity towards pathological concern for their partner. This over-investment in their partners' needs and under-investment in self needs appears to be fed by an imbalanced sense of relational entitlement and inauthenticity within the relationship. Since these imbalanced relational attitudes take a heavy toll in terms of romantic and other close relationships, women with disordered eating should be gently helped by family, friends and therapists to shift

their attitudes. To increase satisfaction from romantic relationships, they should be encouraged to communicate their relational needs clearly and learn skills necessary to develop an assertive sense of relational entitlement and healthy concern for their partner. Prospective studies with diverse populations with a broad range of ED symptoms, for example severe restriction, binge eating and/or purging behaviors, are needed to broaden our understanding of the temporal interplay between ED symptoms, sense of relational entitlement, pathological concern, authenticity and relationship needs and improve treatment and prevention strategies for women with disordered eating.

What is already known on this subject?

People with eating pathology report low satisfaction from romantic relationships. Little is known about the relational dynamics underlying difficulties in couple relationships for this population.

What this study adds?

An imbalanced (restricted or inflated) sense of entitlement, pathological concern and relational inauthenticity may partially explain low relationship satisfaction for people with disordered eating.

## Appendix

Informed consent to participate in the study (at Ruppin Academic Center, a similar consent form was administered at the Interdisciplinary Center in Herzliya.

The subject of this study is eating habits and romantic relationships. There are no right or wrong answers.

Completion of the questionnaires will take about 20 min.

I hereby declare that I agree to participate in a study concerning my eating habits as detailed in this document.

The following have been explained to me: that:

- (1) The study was approved by the Ruppin Academic Center Ethics Committee.
- (2) I am free to withdraw my participation in the experiment at any time, with no repercussions.
- (3) The study is conducted anonymously and the personal details I have provided will be kept in confidentiality separately from the data. My personal identity will not be revealed in scientific publications.
- (4) I can contact the researchers with any questions and problems related to the study that I may have.

I declare that I have been provided with detailed information about the study and especially with details related to the purpose of the study, the methods, the expected duration, the common inherent risks and any inconvenience that may be caused by it.

I hereby declare that I gave my consent above of my own free will and that I understand all of the above.

Pressing the “confirm” key at the bottom of this page is a substitute for my signature.

If you would like to contact us for more details you can do so via the email address X@gmail.com. If you want to take a break from the questionnaires and return at another time, you can do so. Your answers will be saved for one week. However, you must reconnect from the same device.

**Author's contributions** R.T. conceived and oversaw the study. R.T. and R.B.M. wrote the Introduction and Discussion. L.L.A. conducted statistical analyses and wrote the Results. D.B. conducted the study, wrote the Methods and helped with the writing of the other sections. All authors approved the final version of the manuscript.

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**Data availability** Data is available on request via the corresponding author.

## Declarations

**Conflict of interest** The authors have no conflict of interest or competing interests to declare.

**Ethical approval** Obtained from the Ethics Committee of the Interdisciplinary Center, Herzliya, Israel and Ruppin Academic Center, Emek Hefer, Israel.

**Consent to participate** All participants provided informed consent.

**Consent for publication** All participants understood and approved that the results of the study would be published (without any identifying information).

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