

RESEARCH ARTICLE

French Adaptation of the Eating Disorder Recovery Self-Efficacy Questionnaire (EDRSQ): Psychometric Properties and Conceptual Overview

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Abstract

High prevalence of Eating Disorders (EDs) and poor treatment outcome rates have urged research in the assessment of EDs. Self-efficacy is a key motivational factor in the recovery from EDs. A self-report measure, the Eating Disorder Recovery Self-Efficacy Questionnaire (EDRSQ), was recently developed to assess confidence in adopting healthy eating behaviours and in maintaining a realistic body image. The objectives of this study were to (a) translate the EDRSQ to French (EDRSQ-F), (b) assess the psychometric properties of this French version, and (c) establish normative data for a non-clinical sample. Participants were 203 undergraduate women. They completed the EDRSQ-F and measures of ED symptoms, depression and self-esteem. A confirmatory factor analysis (CFA) revealed a bi-factorial structure. Both scales demonstrated evidence of reliability and theoretically consistent evidence of construct validity. Findings support the validity of the EDRSQ-F and suggest it is a useful instrument for the assessment of EDs. Copyright © 2010 John Wiley & Sons, Ltd and Eating Disorders Association.

Keywords

eating disorders; self-efficacy; anorexia nervosa; bulimia nervosa; screening

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Introduction

Eating disorders (EDs), both clinical and subclinical, have become an important public health issue (Chavez & Insel, 2007; Park, 2007). Prevalence rates as high as 13% have been reported for clinical EDs (Johnson, Cohen, Kasen, & Brook, 2006). Moreover, subclinical eating disorders might affect as much as 61% of the college female population (Gutzwiller, Oliver, & Katz, 2003). It is also known that subclinical EDs tend to

progress towards clinical EDs (Patton, Johnson-Sabine, Wood, Mann, & Wakeling, 1990). In fact, some authors conceptualize EDs as a continuum ranging from the absence of symptoms to full-blown clinical disorders, including various intensities of purgative and restrictive symptoms (e.g. Mazzeo & Espelage, 2002). Therefore, it has been recommended to screen and initiate treatments for those who are affected by subclinical ED because the mere presence of these symptoms is pre-occupying (Ackard, Fulkerson, & Neumark-Sztainer,

2007). Moreover, an early treatment initiation has been recognized as a powerful positive prognostic factor (Rosen, 2003). These findings support the importance of a thorough screening process for at-risk populations.

Also, EDs are chronic psychiatric disorders that are further complicated by relapse rates as high as one third and persistent subthreshold symptoms (Eckert, Halmi, Marchi, Grove, & Crosby, 1995; Herzog *et al.*, 1999). As many as 20% of those treated will even continue to meet clinical levels of pathology (Keel & Mitchell, 1997). Given the chronicity of EDs and their resistance to treatment, the National Institute of Mental Health has urged researchers to identify new treatment targets that are derived from studies that focus on premorbid traits and traits that persist through the illness and after recovery (Chavez & Insel, 2007). Some authors have suggested that motivational factors might be important premorbid personality traits that contribute to the onset and maintenance of EDs (Pinto, Guarda, Heinberg, & DiClemente, 2006; Rieger *et al.*, 2000; Vitousek, Watson, & Wilson, 1998). Thus, the screening scope needs to be larger than the sole assessment of symptoms to include motivational factors. One of them, the concept of self-efficacy, is considered to be a key factor in EDs and is described as one's confidence in being able to carry out a behaviour in order to produce a desired result (Bandura, 1997). In clinical ED populations, self-efficacy appeared to be an important predictor of recovery (Goodrick, Pendleton, Kimball, Carlos Poston, Reeves, & Foreyt, 1999; Linde *et al.*, 2004; Stotland, Zuroff, & Roy, 1991; Wilson, Fairburn, Agras, Walsh, & Kraemer, 2002). Very few self-efficacy studies focused on bulimia and even less pertained to anorexia or sub-clinical EDs. Studies pertaining to eating self-efficacy in sub-clinical populations suggested that self-efficacy is an important motivational factor implicated in EDs (Bardone-Cone, Abramson, Vohs, Heatherton, & Joiner, 2006; Berman, 2006). However, the measurement of eating self-efficacy remains problematic. The studies cited previously either used general self-efficacy instruments or questionnaires assessing binge eating and overeating that neglected the restrictive manifestations of the ED spectrum. It appears crucial to determine if self-efficacy is as important in the restrictive manifestations as it is at the bingeing and purging end of the spectrum. Since self-efficacy is thought to be specific, its measure must pertain to the problematic behaviours.

A recent article reported the creation and validation of an instrument measuring the confidence in one's ability to adopt healthy eating habits in the context of recovery from EDs. The Eating Disorder Recovery Self-Efficacy Questionnaire (EDRSQ; Pinto *et al.*, 2006) is designed to include all manifestations of the spectrum of clinical and sub-clinical EDs. It is composed of two scales, Normative Eating Self-Efficacy (NESE) and Body Image Self-Efficacy (BISE). The NESE scale measures the confidence in the ability to adopt healthy eating habits without becoming anxious and without restricting, bingeing, purging and exercising excessively. The BISE scale measures the confidence in the ability to maintain a realistic body image that is not overshadowed by an unhealthy drive for thinness.

The EDRSQ was validated with 116 individuals suffering from ED, 10% of them being in partial remission. The instrument presented interesting psychometric properties. Moderate to high negative correlations were found between the EDRSQ scores and ED indicators, demonstrating convergent evidence of validity. In a second study, Pinto, Heinberg, Coughlin, Fava, and Guarda (2008) tested the predictive validity of the EDRSQ among 104 underweight female inpatients. They found that patients' EDRSQ score at admission was positively related to weight regain and negatively related to higher scores on the Eating Disorder Inventory 2 (EDI-2; Garner, 1991) subscales and to the length of hospital stay. Stated otherwise, the less self-efficacy the patient displayed, the less weight she gained, the more she was symptomatic on the EDI-2 and the longer she remained hospitalized. The EDRSQ thus appears to be a good predictor of outcome of EDs. It appears to be a useful contribution to a more thorough documentation of the clinical picture of those affected during the assessment stage. Moreover, it is the only validated measure of eating disorder recovery self-efficacy that can be used for the full spectrum of EDs. However, the EDRSQ has only been validated in a clinical setting and its authors recommend establishing its psychometric properties in non-clinical populations.

The French-speaking population is currently affected by a high prevalence of EDs (e.g. Basdevant, Pouillon, Lahlou, Le Barzic, Brillant, & Guy-Grand, 1995) and the leaders of these communities have recently acknowledged the importance of taking action towards this problem. A thorough assessment of EDs, including an index of motivation for behaviour change such as the

EDRSQ, is required to tailor existing treatments to the needs of those affected. Therefore, the present study's objectives were threefold: (a) to translate the EDRSQ to French (EDRSQ-F), (b) to assess the psychometric properties of the French version and (c) to establish normative data for a non-clinical sample.

Method

Participants and procedure

The translation of the EDRSQ was done according to the method described by Vallerand (1989). First, two bilingual contributors translated the EDRSQ to French, producing two parallel French versions of the EDRSQ. Then, both versions were back-translated into English by two other contributors. The similarity between the original English questionnaire and the back-translated English versions is a marker of the quality of the intermediary French version. Subsequently, a committee evaluated both French versions according to their readability and concordance with the original version. For four of the 23 items, the committee members had a divergence of opinion and discussion was held until a consensus was reached. Finally, the committee decided upon a final version of the EDRSQ-F. The committee was composed of three graduate students, a professor of Nutrition and a professor of Psychology.

Participants were recruited on a voluntary basis during an undergraduate psychology course and were asked to complete the EDRSQ-F and other questionnaires. They were assured that all their responses would remain confidential and anonymous. No incentives were provided to the participants. The only inclusion criteria were to be a female and to be over 18 years of age. The participants were informed of the study and then signed a consent form.

Participants were 203 undergraduate female students at a French-Canadian university with a mean age of 21.8 years ($SD = 3.9$). The mean Body Mass Index (BMI) was 21.7 kg/m^2 ($SD = 3.4$). A slightly larger than expected proportion of the sample was underweight, since 12% had a BMI lower than 18.5 kg/m^2 , compared to the population estimate of 3.9% for Canadian women (Statistics Canada, 2005). Table 1 provides further details on demographic characteristics of the sample. The majority of the participants completed the questionnaires in the classroom. When this option was not possible, they were asked to complete the questionnaires at home ($n = 53$). There were no

Table 1 Participant demographics

Characteristics	Distribution (%)
Ethnicity	
Caucasian	84.2
Afro-American	3.0
Latino	1.5
Arab	5.4
Asian	5.0
Marital status	
Single	78.0
Married	3.5
Living with someone	17.5
Widowed or divorced	1.0
Annual earning	
0–10 k	63.5
10–20 k	26.0
20–30 k	7.5
30 and more	3.0
BMI (kg/m^2)	
Less than 18.5	11.8
18.5–24.9	75.9
25–29.9	8.9
Over 30	3.4

$k = 1000$; BMI = Body Mass Index; kg/m^2 = kilogram by square meter.

differences pertaining to demographics, weight, BMI, self-efficacy, self-esteem and ED symptomatology between those who completed the questionnaires in the classroom and those who completed them at home. However, the participants who completed the questionnaires at home were slightly older than those who completed them in the classroom ($t(199) = -2.418$, $p < .05$). Two weeks later, the participants were asked to complete the EDRSQ-F a second time to establish the test–retest reliability.

Measures

Demographic information

Basic demographic information included age, ethnicity, education, marital status, revenue, weight and height.

Eating Disorder Recovery Self-Efficacy Questionnaire-French (EDRSQ-F)

The French version of the EDRSQ (Pinto et al., 2006) was used to assess participants' confidence in their aptitude to adopt or maintain healthy eating habits and

attitudes. The EDRSQ is composed of 23 items grouped in two scales, NESE and BISE. NESE measures the confidence in the ability to normalize one's eating behaviours in different contexts and to refrain from risky eating behaviours such as restricting, bingeing, purging and exercising excessively. The NESE scale is composed of 14 items and an item example is 'I can eat a cheeseburger without compensating by restricting, exercising excessively or purging'. BISE measures the confidence in the ability to base one's self-esteem on other aspects than weight and to maintain a realistic body image that is not overshadowed by an unhealthy drive for thinness. The BISE scale is composed of nine items and an item example is 'I can look at my stomach or thighs without wondering if I've gained or lost weight'. Items are rated on a five-point scale ranging from 1 (*Not at all confident*) to 5 (*Extremely confident*). The original article used both scales separately and did not provide data pertaining to a total score for the EDRSQ.

Beck Depression Inventory (BDI)

Depressive symptoms were established to assess the external construct validity of the EDRSQ-F. The BDI is a valid and reliable self-report measure of depressive symptoms (Beck & Steer, 1987; Beck, Steer, & Garbin, 1988; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). In this study, the French version of the BDI was used (Bourque & Beaudette, 1982) and the internal consistency was .85. Based on clinical assumptions, the correlation with both scales of the EDRSQ was expected to be moderate and negative, of a predicted magnitude of $-.40$. However, in the original English validation of the NESE and BISE scales, these correlations were slightly higher ($-.57$ and $-.62$, respectively).

Eating Attitude Test-26 (EAT-26)

Behavioural symptoms of eating disorders were assessed with the EAT-26 (Garner, Olmsted, Bohr, & Garfinkel, 1982). This scale was included in this study in order to provide convergent validity for the EDRSQ-F. The EAT-26 is a widely used scale that has demonstrated strong evidence of validity in the measure of ED behavioural symptoms (e.g. Garner *et al.*, 1982). The French version was used (Carrot, Lang, Estour, Pellet, Gauthey, & Wagon, 1987; Leichner, Steiger, Puentes-Neuman, Perreault, & Gottheil, 1994). In this study, the internal consistency of the EAT-26 was .89. The

correlation with both scales of the EDRSQ-F was expected to be strong and negative, with a predicted magnitude of $-.70$, based on correlations with other ED measures found in the original validation of the EDRSQ.

Eating Disorder Inventory-2 (EDI-2)

Psychological symptoms of eating disorders were assessed using the EDI-2 (Garner, 1991) to provide evidence of convergent, divergent and external construct validity for the EDRSQ-F. The EDI-2 is a widely used self-report instrument composed of 11 scales designed to assess different aspects of EDs. Participants in this study completed four EDI-2 scales in order to assess the construct validity of the EDRSQ-F. First, participants completed the Drive for Thinness and Body Dissatisfaction subscales in order to assess the convergent validity of the EDRSQ-F. These two subscales measure respectively attitudes and behaviours towards the pursuit of thinness and body image. Based on the English validation of the EDRSQ, for the NESE scale, the respective expected correlations with these two EDI-2 scales were $-.70$ and $-.60$. For the BISE, the respective expected correlations with the EDI-2 scales were $-.70$ and $-.80$. Therefore, there was a predicted difference between the two scales of the EDRSQ (NESE and BISE) for the Body Dissatisfaction scale of the EDI-2. A negative correlation of a greater magnitude is to be expected with the BISE scale since it measures the confidence in the ability to have low levels of body dissatisfaction. Second, participants completed the Maturity Fears subscale to assess the divergent validity of the EDRSQ-F since this subscale measures a more general characteristic of ED patients that is not associated with ED symptoms. Based on the English validation of the EDRSQ, the expected correlation with both scales of the EDRSQ was expected to be small and negative ($-.20$). Third, participants completed the Ineffectiveness subscale of the EDI-2 in order to further assess the external construct validity of the EDRSQ. The Ineffectiveness subscale was created to measure Bruch's (1962; 1973; 1978) ineffectiveness construct, described as a general and pervading feeling of helplessness, emptiness and a sense of not being in control of one's needs, behaviours and impulses, as though the person's body did not belong to herself (Garner, Garfinkel, Stancer, & Moldofsky, 1976). In the original validation, the Ineffectiveness subscale of the EDI-2 was not

assessed. Based on clinical assumptions, we hypothesized that the ineffectiveness and self-efficacy concepts would be related yet distinct. We hypothesized that the correlation between both EDRSQ scales and this subscale would be of $-.40$. The French version of the EDI-2 was used in this study (Archinard, Rouget, Painot, & Liengme, 2002). The internal consistency of the Drive for Thinness and Body Dissatisfaction subscales was $.89$ and $.92$, respectively. The internal consistency of the Maturity Fears and Ineffectiveness subscales was $.83$ and $.84$, respectively.

Rosenberg Self-Esteem Scale (RSE)

The RSE (Rosenberg, 1965) is a well-established measure of self-esteem (Rosenberg, 1965). The French version (Vallières & Vallerand, 1990) was used in this study to assess the external construct validity of the EDRSQ-F since self-esteem is a construct related to, yet different, from self-efficacy. The correlation with both scales of the EDRSQ was expected to be positive and moderate ($.40$). The internal consistency in this study was $.87$.

Statistical analyses

First, to document the factor structure of the EDRSQ-F, a confirmatory factor analysis (CFA) was conducted using LISREL 8 (Jöreskog and Sörbom, 2003). The other analyses were performed with SPSS 13.0 for Mac OS.X (SPSS, Chicago, IL). Student's *t*-tests for independent samples were used to determine if there were differences on the scores obtained by those who completed the questionnaires within classroom sessions and those who completed them at home. The internal consistency of the EDRSQ-F scales and other questionnaires was evaluated using Cronbach α coefficients. The relationship between the two administrations of the EDRSQ-F (test–retest reliability) was calculated for the two scales using Pearson product moment correlations. Student's *t*-tests for independent samples were used to determine if the mean scores on NESE and BISE were different in our group of non-clinical participants compared to the clinical and remission groups presented in the original validation study (Pinto et al., 2006). Relationships among EDRSQ-F scales and the other questionnaires used to assess convergent, divergent and external construct validity were evaluated using Pearson product moment correlations. Moreover, an index of construct validity recently proposed

by Westen and Rosenthal (2003) was calculated to provide a summary index of the overall construct validity of the EDRSQ-F. The index is called $r_{\text{alerting-CV}}$. It is calculated using a correlation between (a) the pattern of predicted correlations between the EDRSQ-F and the other questionnaires and (b) the pattern of correlations actually obtained. All tests of significance were based on α set at $.05$.

Results

Confirmatory factor analysis

The original version of the EDRSQ was created to account for two important aspects of eating disorder recovery self-efficacy: NESE and BISE. The two constructs were thought to be different, yet associated. In order to test this model, a CFA was conducted. The model was composed of two latent variables (NESE and BISE) each with 14 and nine observed variables, respectively. The covariance matrix served as the database for the CFA and the method of estimation was Maximum Likelihood. The analysis confirmed the bi-factorial structure of the EDRSQ-F. The χ^2/df ratio was in an acceptable range (χ^2 (df = 223, $N = 203$) = 429.94, $p < .001$; $\chi^2/\text{df} = 1.93$) and other fit indices were adequate: Normed Fit Index (NFI) = $.97$; Non-Normed Fit Index (NNFI) = $.99$, Comparative Fit Index (CFI) = $.99$, Root Mean Square Error of Approximation (RMSEA) = $.068$ [$.058$; $.077$] and Standardized Root Mean Residual (SRMR) = $.048$. All loadings ranged from $.50$ to $.89$. Since both latent variables were correlated ($r = .78$), a one-factor structure was tested and was deemed inadequate (RMSEA = $.110$ [$.103$; $.120$]; χ^2 (df = 224, $N = 203$) = 783.56, $p < .001$; NC (χ^2/df) = 3.50; $\Delta\chi^2 = 353.62$). These results suggest that the bi-factorial model should be preferred.

Internal consistency and reliability

The two scales of the EDRSQ-F, NESE and BISE demonstrated good internal consistency reliability. The Cronbach's α coefficients for NESE and BISE were $.96$ and $.91$, respectively. In the original English version of the EDRSQ, the Cronbach α coefficient for both scales was very similar ($.97$ for NESE and $.95$ for BISE).

Test–retest reliability was also calculated for both scales of the EDRSQ-F and was found to be excellent. For NESE and BISE respectively, the correlations

between both administrations were .91 ($p < .01$) and .89 ($p < .01$) for the 2-week interval.

Group means on EDRSQ-F scales

Since there are no existing normative values for a non-clinical population for the EDRSQ, we calculated a mean score and a standard deviation for both NESE and BISE scales. Given the EDRSQ scoring range is from 1 to 5, so is the mean score for each scale, with a higher score reflecting a higher level of self-efficacy. In our sample, the mean scores for NESE and BISE were 4.3 ($SD = 0.8$) and 3.4 ($SD = 0.8$), respectively. In the original English validation, participants either met full criteria of ED or were in partial remission. For the clinical group, the mean score for the NESE scale was 2.2 ($SD = 1.0$), which is statistically different from our sample ($t(272) = 17.79$, $p < .0001$). For the partial remission group, the mean NESE score was 2.8 ($SD = 1.1$), which is also statistically different from our group ($t(213) = 6.1710$, $p < .0001$). For the BISE scale, the mean score for the clinical group was 2.0 ($SD = 0.9$), ($t(272) = 11.2820$, $p < .0001$) and it was 2.3 ($SD = 1.0$) ($t(213) = 4.0894$, $p < .0001$) for the partial remission group. Therefore, the non-clinical group demonstrated a significantly higher level of eating self-efficacy than the clinical and partial remission group.

Validity

Convergent validity

The NESE and BISE scales were positively correlated, $r(203) = .74$, $p < .001$ in our sample. This correlation is slightly weaker than the correlation between the scales found in the original validation, where $r(114) = .81$, $p < .001$. Table 2 presents the correlations between the two scales of the EDRSQ-F and measures of eating pathology, namely the Drive for Thinness and Body Dissatisfaction subscales of the EDI-2 and the EAT-26. Correlations between the EDRSQ-F scales and the pathological measures were large and negative. Data from the validation of the original English version are also presented in Table 2. Results tend to be similar for both versions of the EDRSQ. Furthermore, the magnitude of the association between BISE and the Body Dissatisfaction subscale is greater than for NESE in both versions of the EDRSQ. These results provide additional support for the convergent validity of the EDRSQ scales.

Table 2 Intercorrelations among original and French EDRSQ scales and convergent, divergent and external construct validity measures

	EDRSQ		EDRSQ-F	
	NESE	BISE	NESE	BISE
Convergent validity				
EDI-2 Drive for Thinness	-.71**	-.69**	-.77**	-.68**
EDI-2 Body dissatisfaction	-.61**	-.76**	-.61**	-.75**
EAT-26 [†]	—	—	-.77**	-.59**
Divergent validity				
EDI-2 Maturity Fears	-.30**	-.26**	-.29**	-.28**
External construct validity				
Rosenberg Self-Esteem Scale [†]	—	—	.35**	.45**
Beck Depression Inventory	-.57**	-.62**	-.37**	-.42**
EDI-2 Ineffectiveness [†]	—	—	-.44**	-.49**

EDRSQ = Eating Disorder Recovery Self-Efficacy Questionnaire; EDRSQ-F = Eating Disorder Recovery Self-Efficacy Questionnaire—French; NESE = Normative Eating Self-Efficacy; BISE = Body Image Self-Efficacy; EDI-2 = Eating Disorder Inventory-2; EAT-26 = Eating Attitude Test-26.

[†] In the original English validation of the EDRSQ, data pertaining to the EDI-2 Ineffectiveness subscale, EAT-26 and Rosenberg Self-Esteem Scale are unavailable.

** $p < .01$.

Divergent validity

Correlations between the EDRSQ scales and EDI-2 Maturity Fears subscale are presented in Table 2. The relation was small to moderate for both versions of the EDRSQ, thus providing good support for the divergent validity of the EDRSQ.

External construct validity

Correlations between the EDRSQ scales and BDI, Ineffectiveness and RSE are presented in Table 2. The correlation between both EDRSQ scales and BDI is negative and small to moderate, suggesting that a more depressed mood is associated with a lower level of self-efficacy. In addition, both scales of the EDRSQ-F and the EDI-2 Ineffectiveness subscale were negatively and moderately correlated, suggesting that a greater eating self-efficacy is associated with a lower sense of ineffectiveness. Moreover, both EDRSQ-F subscales are positively associated with RSE, with a relation of small to moderate magnitude, suggesting that a greater self-esteem is associated with a greater eating self-efficacy.

Overall construct validity of the EDRSQ-F

An index of overall construct validity was proposed by Westen and Rosenthal (2003). This statistical tool

provides an overall index of construct validity that is readily interpretable as a Pearson correlation. For both NESE and BISE scales, $r_{\text{alerting-CV}}$ was .99 and .98, respectively. This result indicates a very high convergence between the calculated and expected correlations between the EDRSQ-F and the other questionnaires, thus indicating an excellent overall construct validity.

Discussion

The purposes of the present study were to adapt the EDRSQ for the French-speaking population and to evaluate its psychometric properties in a non-clinical sample. A number of findings emerged. First, the French version of the EDRSQ fits a bi-factorial structure identical to the one of the original English version. Second, results suggest that the French version of the EDRSQ is a reliable self-report instrument since both subscales demonstrate excellent test-retest reliability and excellent internal consistency. Third, both EDRSQ-F scales show evidence of good construct validity because their relationships with related constructs are consistent with what was theoretically expected. These correlations are also consistent with those presented in the original English validation of the EDRSQ, supporting the quality of the translation. An overall index of construct validity, $r_{\text{alerting-CV}}$ (Westen & Rosenthal, 2003) was also calculated and the magnitude of the correlations for both subscales suggested that our predicted pattern of correlations provided a very accurate expectation of the pattern of correlations actually observed, thus supporting excellent construct validity.

A more in depth discussion of construct validity is important despite the excellent results provided by the $r_{\text{alerting-CV}}$. Convergent validity was demonstrated through negative and strong correlations with measures of ED. These correlations indicated that a higher perceived self-efficacy was associated with less drive for thinness, less body dissatisfaction and fewer behaviours aimed at losing weight. In addition, although both EDRSQ-F scales are correlated, it can be assumed that they are not redundant and measure different aspects of self-efficacy in recovery from an ED because of their pattern of association with different measures of convergent validity. As expected, BISE shows an association of a larger magnitude with EDI-2 Body Dissatisfaction than does NESE. In opposition, NESE

shows an association of a greater magnitude with EAT-26, a scale measuring cognitive and behavioural efforts in losing weight. Thus, there seems to be a conceptual difference between the two dimensions of the EDRSQ-F, the NESE scale pertaining to the adoption of healthy eating habits and the BISE scale pertaining to the maintenance of a realistic body image that is not overshadowed by body dissatisfaction. Thus, the BISE and NESE scales provide a unique picture of the motivation for behaviour change by quantifying two important and complementary aspects of eating disorder recovery self-efficacy.

The Maturity Fears of the EDI-2 was used to support divergent validity of the EDRSQ-F. Indeed, a negative and small correlation was obtained with both EDRSQ-F scales, despite a large variance. The construct validity of the EDRSQ-F was further supported by its relationships with other related yet distinct constructs. As expected, both NESE and BISE scales were positively but moderately correlated with self-esteem. In addition, both scales showed a negative and small to moderate association with depression. This relationship suggests that more depressed participants showed lower levels of self-efficacy. The association between self-efficacy and depression was to be expected because it has consistently been found in the ED literature (e.g. Linde et al., 2004; Pinto et al., 2006) and in the general self-efficacy literature (Bandura, 1992, 2000). However, this association is smaller than the one found in the original article. The population studied could explain this discrepancy. Since the population in the original study was composed of participants with clinical ED, it is likely that they displayed more pathological scores on general measures of mental health such as the BDI. Unfortunately, the original article does not provide data pertaining to the mean and standard deviation of the BDI scale. The smaller association found with the EDRSQ-F might also be caused by a smaller variance since our sample is likely to be more homogenous.

Finally, a moderate and negative relationship was found between the EDI-2 Ineffectiveness subscale and both scales of the EDRSQ-F, suggesting that the feeling of ineffectiveness would be only moderately associated with a low level of self-efficacy. This finding supports prior research indicating that confidence in the ability to control eating when an abundance of food is available was moderately and inversely related to ineffectiveness (Berman, 2006). The Ineffectiveness subscale was first designed to capture Bruch's concept

of a general sense of being ineffective (Bruch, 1962, 1973, 1978). In light of the present findings, it would appear that self-efficacy and effectiveness are not redundant concepts, thus confirming the theoretical assumption that the two concepts are related yet distinct.

This study has some limitations. First, the EDRSQ-F has not been validated in a clinical sample of participants and thus future research should validate the EDRSQ-F in a clinical ED population. Second, future research should try to replicate the factorial structure of the EDRSQ-F with a larger sample size in order to further support its stability within a different sample. Third, more research is needed to document the use of EDRSQ for men. Further research is also needed to deepen our understanding of the role of eating self-efficacy in the prevention of EDs, magnitude of symptoms, treatment compliance, as well as success and relapse rates. Nevertheless, this study supports the EDRSQ as a promising instrument for the field. It is psychometrically sound and conceptually interesting. Indeed, it is the only validated instrument measuring eating disorder recovery self-efficacy that has been designed for the whole spectrum of presentation of EDs. The information provided by the NESE and BISE scales is specific to the behaviours to be changed and draws a complementary picture of the patient's eating disorder recovery self-efficacy. The EDRSQ seems to be a useful instrument to widen the scope of assessment of EDs to include motivational indices influencing behavioural change. It seems promising for documenting prognosis, for monitoring patients' progress and motivation during treatment as well as for individualizing existing treatments. Moreover, in line with the National Institute of Mental Health's recommendation, it could be used to design self-efficacy-based approaches to intervention.

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