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Self-efficacy as a predictor of treatment outcome in an outpatient eating disorder program

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ABSTRACT

This prospective pilot study examined the relationship between self-efficacy and treatment outcome in an adult outpatient eating disorder program. Data from 59 eating disorder outpatients were collected, including measures of self-efficacy, eating disorder symptom severity, negative emotions (depression, anxiety, and stress), body mass index, and duration of illness. Hierarchical regression was used to examine the impact of baseline self-efficacy, and early treatment changes in self-efficacy (i.e., baseline to 6 weeks), on end-of-treatment (EoT) eating disorder symptom severity and treatment dropout. Early change in self-efficacy during the course of treatment was found to predict EoT symptom severity when controlling for confounding variables. Furthermore, baseline self-efficacy was found to predict treatment dropout, but not end-of-treatment symptom severity. This is the first study (using a validated scale) to show that self-efficacy, and early changes in self-efficacy, may be an important predictor of treatment outcome for eating disorder outpatients. Implications and suggestions for future research are discussed.

Self-efficacy, or an individual’s self-perceived ability to succeed at a task or goal, is a robust predictor of treatment outcome for smoking, drug and alcohol use, obesity, chronic disease self-management, and depression (Clarke et al., 2014; Pinto, Heinberg, Coughlin, Fava, & Guarda, 2008). Several mechanisms can explain the relationship between self-efficacy and treatment outcomes. First, self-efficacy enhances the belief that one’s effort will lead to a positive outcome in a given task (i.e., expectancy). In treatment, expectancy may improve an individual’s willingness to persist with difficult therapeutic activities (e.g., “I will tolerate the discomfort of an anxiety provoking exposure task because I believe I can achieve a positive outcome; Seligman, 1975”). Second, those with low self-efficacy tend to ruminate about their perceived deficiencies, or anticipated inability to accomplish a goal,

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rather than attend to the therapeutic task, thereby hindering effective engagement in treatment (Strecher, McEvoy DeVellis, Becker, & Rosenstock, 1986).

Given the relatively poor outcomes and high dropout rates in eating disorder treatment, it is surprising that few studies have examined self-efficacy as a predictor of eating disorder outcome or treatment dropout (Vall & Wade, 2015). In non-clinical populations, several studies have shown that low self-efficacy is correlated with disordered eating behaviors (Berman, 2006; Glasofer et al., 2013; MacNeil, Esposito-Smythers, Mehlenbeck, & Weismoore, 2012). In clinical samples, one study used a validated measure to explore baseline self-efficacy as it relates more narrowly to eating and body image cognitions (e.g., a patient’s confidence that they can eat in a restaurant with friends, or wear a swimsuit in public; Pinto et al., 2008). These researchers found that baseline eating/body image self-efficacy significantly predicted inpatient admission length and post-treatment body image dissatisfaction. Evidence from two other studies in clinical samples found that at baseline, responses to non-validated, one-item questions measuring self-efficacy (e.g., “If you decided to change, how confident are you that you would succeed?”) were predictors of eating disorder treatment outcome (Goddard et al., 2013; Steele, Bergin, & Wade, 2011).

In addition to baseline self-efficacy being a potential predictor of treatment outcome, change in self-efficacy over the course of treatment may also be a relevant predictor variable (Brown et al., 2014). One study found that post-treatment eating disorder relapse was predicted by a decrease in “motivation to change” over the first 4 weeks of treatment as measured by a 3-item, non-validated measure, which incorporated one question related to “confidence (i.e., self-efficacy) about achieving and maintaining recovery” (Carter et al., 2012). The authors concluded that further research is needed in order to examine self-efficacy as a predictor of treatment outcome with validated measures. In non-eating disorder research, a directionality analysis found that changes in self-efficacy over the course of anxiety disorder treatment predicted improvements in anxiety symptoms and ability to function at the end-of-treatment (EoT; Brown et al., 2014). Consistent with this finding, two studies found that pre- to post-treatment increases in self-efficacy predicted anxiety and alcohol-related symptom improvement at the EoT (Black et al., 2012; Bouchard et al., 2007). Conversely, one meditational analysis found that changes in self-efficacy did not predict outcome in a cognitive therapy treatment for anxiety (Hoffart, 1998).

Given the dearth of eating disorder research related to this potentially relevant predictor variable, the aim of this prospective pilot study is to examine the relationship between self-efficacy (using a validated measure) and treatment outcomes in an adult outpatient eating disorder program. Specifically, we hypothesize that (a) low self-efficacy at baseline will predict higher EoT symptom severity and premature treatment dropout, and (b) self-
efficacy *change* during eating disorder treatment will inversely predict EoT symptom severity and premature treatment dropout (e.g., lower levels of improvement in self-efficacy will predict higher EoT symptom severity and premature treatment dropout). With respect to the second hypothesis, we decided to specifically examine self-efficacy change *early* in treatment because early symptom change has consistently been identified as an important mediator of both EoT and follow-up outcomes (Vall & Wade, 2015).

**Method**

**Participants**

Participants were adult eating disorder outpatients attending the Nova Scotia Health Authority Eating Disorder Program between March 2014 and August 2016. This is an intensive group-based program that runs 4 days/week for up to 32 weeks. This treatment is described as eclectic, incorporating different models of therapy such as cognitive behavioral therapy, acceptance and commitment therapy, and dialectical behavior therapy.

Data were collected from 59 consecutive outpatients with *DSM-V* (American Psychiatric Association, 2013) diagnoses of eating disorders as determined by the clinics’ PhD psychologist and psychiatrist (see Figure 1). Of the 59 patients, 10 did not provide complete data (i.e., missing baseline or post-baseline data) and were, therefore, not included in the analyses.

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**Figure 1.** Consort diagram of eating disorder outpatients included in the study.
resulting in a final sample of 49 patients. Participants were primarily women (n = 47), with two men included in the sample. The participants were diagnosed with bulimia nervosa (n = 27; 55.1%), anorexia nervosa (n = 8; 16.3%), anorexia nervosa binge/purge subtype (n = 6; 12.2%), and unspecified eating disorder (n = 8; 16.3%). Participants ranged from 18 to 53 years of age (M = 28.06, SD = 8.38) with a mean body mass index (BMI) of 22.73 kg/m$^2$ (SD = 4.73, range: 17.80–36.60). The mean duration of illness for the sample was 9.61 years (SD = 6.17, range: 0.5–22) and the average length of treatment was 17.40 weeks (SD = 9.67, range: 3–39). Additionally, 19 participants were employed (38.8%), 15 were unemployed (30.6%), and 15 were students (30.6%).

**Measures**

Outcome measures were collected at the start of treatment, 6 weeks after the beginning of treatment (early response time-point$^1$), and at the EoT.

**Treatment outcome**

EoT eating disorder symptom severity was used as the primary measure of treatment outcome and was assessed with the Eating Disorder Examination Questionnaire (EDE-Q; Fairburn & Beglin, 1994, 2008). The EDE-Q is a 28-item measure that assesses four areas of eating psychopathology (dietary restraint, shape concern, weight concern, and eating concern) over the past 28 days on a 7-point scale from 0 (lowest frequency/severity) to 6 (high frequency/severity). For the purposes of our study, the global score was used, which is generated by taking the mean of the four subscales, where a higher EDE-Q score indicates greater eating disorder symptom severity. The secondary outcome measure was Type-A Treatment Dropout, as described by Fassino, Pierò, Tomba, and Abbate-Daga (2009), which is patient-initiated termination prior to staff-recommended program completion. Participants were excluded from the treatment dropout analysis if they did not meet the criteria for type-A dropout or treatment completion (e.g., leaving treatment prematurely in order to return to university; see Figure 1 for reasons participants were excluded from the dropout analysis). Only five patients did not meet criteria for either type-A dropout or treatment completion.

**Self-efficacy**

With respect to self-efficacy, our goal was to measure this construct as it relates to the patients’ confidence in their general abilities, including their ability to cope with the challenges of a treatment program. Therefore, we selected the 26-item self-report Coping Self-Efficacy Scale (CSES) to assess patient self-efficacy, which asks respondents to rate how confident they are, on an 11-point scale from 0 (cannot do at all) to 10 (certain can do), that
they can employ various coping strategies (Chesney, Neilands, Chambers, Taylor, & Folkman, 2006). This measure has been validated to assess one’s confidence in their ability to employ three different types of coping behaviors when faced with life challenges: (a) problem-focused coping (e.g., “break an upsetting problem down into smaller parts”), (b) managing unpleasant emotions and thoughts (e.g., “make unpleasant thoughts go away”), and (c) accessing support (e.g., “get emotional support from community organizations and resources”; Chesney et al., 2006). Furthermore, it has been shown to effectively measure changes in self-efficacy over time in intervention research (Chesney et al., 2006), and demonstrated excellent internal consistency in the current study (see Table 1).

### Negative emotions

Negative emotions were measured using the 21-item Depression Anxiety Stress Scale (DASS; Lovibond & Lovibond, 1995). This measure assesses how respondents have been feeling over the past week relating to three types of negative emotions: depression (e.g., “I felt down-hearted and blue”), anxiety (e.g., “I felt I was close to panic”), and stress (e.g., “I found it hard to wind down”). Respondents are asked to indicate the extent to which each item (i.e., negative emotion) applies to them on a 4-point scale from 0 (did not apply to me at all) to 3 (applied to me very much or most of the time). The DASS produces a summed total and a score for each of its three subscales, for which we used the total summed score. A higher DASS score indicates a greater degree of distress.

### Demographics

Duration of illness (in years), demographic information (e.g., age, employment status), and baseline BMI were collected by clinic staff (PhD psychologist or psychiatrist) prior to patients beginning the program.
Ethics approval was received from the Nova Scotia Health Authority Research Ethics Board and written informed consent was received from all participants.

**Results**

In order to establish relevance for the predictor analysis, a paired samples \( t \)-test determined that there was a significant difference between baseline and EoT EDE-Q scores, thus supporting treatment effectiveness \( (t(48) = 6.17, p < .001, \text{Cohen's } d = 0.88) \). Descriptive statistics and estimates of internal consistency for self-report measures (i.e., Cronbach’s alpha) are presented in Table 1.

To examine the relationship between self-efficacy and treatment outcome, we conducted two separate hierarchical regression analyses, one for each measure of treatment outcome (EoT symptom severity and premature dropout). For each regression analysis, we first examined the relationship between our potential predictor variables and the treatment outcome variable of interest in order to inform which control variables to include in the analysis. Only those that were significantly correlated with the dependent variable in the analysis were included as control variables (see Table 1). Control variables were entered into the model first, followed by baseline self-efficacy in the second stage of the model. This allowed for baseline self-efficacy to be examined as a predictor of treatment outcome when controlling for potentially confounding variables. Finally, to model for change in self-efficacy, 6-week self-efficacy scores were added as a predictor variable in the next stage of the analysis.

**Self-efficacy as a predictor of EoT symptom severity (EDE-Q)**

Baseline scores of eating disorder symptom severity \( (r = .58, p < .001) \) and negative emotions \( (r = .41, p = .003) \) were found to be significantly correlated with EoT symptom severity and were therefore entered into the first stage of the regression analysis as control variables. The control variables explained a significant proportion of the variance in EoT symptom severity, \( \Delta R^2 = .35, F(2, 46) = 12.54, p < .001 \) (see Table 2). Adding baseline self-efficacy \( (r = -.42, p = .003) \) into the second stage of the model on top of the control variables did not make a significant incremental contribution to the variance in EoT symptom severity, \( \Delta R^2 = .05, F(1, 45) = 3.73, p = .060 \) (see Table 2). Therefore, baseline coping-self-efficacy was not found to significantly predict EoT symptom severity, when controlling for baseline scores of symptom severity and negative emotions, \( \beta = -0.25, t(45) = -1.93, p = .060 \). However, at stage 3, the addition of 6-week self-efficacy \( (r = -.72, p < .001) \) made a
significant incremental contribution to the variance in EoT symptom severity, accounting for an additional 26% of the variance, $\Delta R^2 = .26$, $F (1, 44) = 33.33$, $p < .001$ and significantly predicted EoT symptom severity, $\beta = -0.70$, $t(44) = -5.77$, $p < .001$. At stage 3, the model accounted for 66% ($R^2$) of the variance in EoT symptom severity.

Multicollinearity was not deemed to be a concern (i.e., VIF values greater than 10 are considered problematic) in stage 3 of our regression model (VIF values: 1.41–1.89).

**Self-efficacy as a predictor of premature dropout**

A binary logistic regression was conducted to examine the role of potential predictor variables on treatment dropout (coded as 1 for premature dropout and 0 for treatment completion; see Table 3). As done in the previous analysis, we examined correlations among potential confounding predictor variables. As can be seen in Table 1, there were no potential control variables that significantly correlated with treatment dropout and thus no control

**Table 2.** Hierarchical linear regression analysis examining baseline self-efficacy, and early changes in self-efficacy, as predictors of end-of-treatment symptom severity in an outpatient eating disorder program, while controlling for baseline measures of eating disorder symptom severity and negative emotions ($n = 49$).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE (B)$</td>
<td>$\beta$</td>
<td>$B$</td>
<td>$SE (B)$</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Baseline EDE-Q</td>
<td>0.77</td>
<td>0.21</td>
<td>0.50$^b$</td>
<td>0.72</td>
<td>0.21</td>
<td>0.47$^b$</td>
</tr>
<tr>
<td>Baseline DASS</td>
<td>0.06</td>
<td>0.05</td>
<td>0.15$n.s.$</td>
<td>0.02</td>
<td>0.06</td>
<td>0.06$n.s.$</td>
</tr>
<tr>
<td>Baseline CSES</td>
<td>-0.28</td>
<td>0.14</td>
<td>-0.25$n.s.$</td>
<td>-0.16</td>
<td>0.13</td>
<td>0.14$n.s.$</td>
</tr>
<tr>
<td>6-week CSES</td>
<td></td>
<td></td>
<td></td>
<td>-0.61</td>
<td>0.11</td>
<td>-0.70$^c$</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.35</td>
<td></td>
<td>.40</td>
<td></td>
<td>.66</td>
<td></td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>.35</td>
<td></td>
<td>.05</td>
<td></td>
<td>.26</td>
<td></td>
</tr>
<tr>
<td>$F$ for change in $R^2$</td>
<td>12.54$^c$</td>
<td></td>
<td>3.73$n.s.$</td>
<td></td>
<td>33.33$^c$</td>
<td></td>
</tr>
</tbody>
</table>

Note. $n.s.$ $p \geq .05$, $a p < .05$, $b p < .01$, $c p < .001$. EDE-Q: Eating Disorder Examination Questionnaire; CSES: Coping Self-Efficacy Scale; DASS: Depression Anxiety Stress Scale; B: regression coefficient; SE: standard error, $\beta$: standardized regression coefficient.

**Table 3.** Hierarchical binary logistic regression analysis examining baseline self-efficacy, and early changes in self-efficacy, as predictors of premature treatment dropout in an outpatient eating disorder program ($n = 44$).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$B$</td>
<td>$SE (B)$</td>
<td>OR</td>
<td>Wald</td>
</tr>
<tr>
<td>Baseline CSES</td>
<td>-0.49</td>
<td>0.23</td>
<td>0.61</td>
<td>4.64$^a$</td>
</tr>
<tr>
<td>6-week CSES</td>
<td>-0.14</td>
<td>0.25</td>
<td>0.87</td>
<td>0.29$n.s.$</td>
</tr>
<tr>
<td>Goodness of Fit</td>
<td>$\chi^2(1) = 5.29$, $p = .021$</td>
<td></td>
<td>$\chi^2(2) = 5.59$, $p = .061$</td>
<td></td>
</tr>
<tr>
<td>Nagelkerke $R^2$</td>
<td>.154</td>
<td></td>
<td>.162</td>
<td></td>
</tr>
<tr>
<td>Classification accuracy</td>
<td>65.9%</td>
<td></td>
<td>68.2%</td>
<td></td>
</tr>
</tbody>
</table>

Note. $n.s.$ $p \geq .05$, $a p < .05$, $b p < .01$, $c p < .001$. CSES: Coping Self-Efficacy Scale; B: regression coefficient; SE: standard error; OR: odds ratio. Treatment dropout coded as 1 for premature dropout and 0 for treatment completion.
variables were entered into the model (see Table 3). Therefore, baseline self-efficacy \( (r = -.34, p = .024) \) was first entered into the model, followed by self-efficacy at 6 weeks \( (r = -.29, p = .055) \) into stage 2 of the model to determine the individual impact of each on treatment dropout (see Table 3).

The first logistic regression model was statistically significant, \( \chi^2(1) = 5.29, p = .021 \), and baseline self-efficacy was found to significantly predict treatment dropout, \( B = -0.49, \text{Wald}(1) = 4.64, p = .031 \). This model, containing solely baseline self-efficacy, explained 15.4% (Nagelkerke \( R^2 \)) of the variance in treatment dropout and correctly classified 65.9% of cases. When 6-week self-efficacy was entered into stage 2 of the model, thus modeling for change in self-efficacy, it was not found to significantly predict treatment dropout, \( B = -0.14, \text{Wald}(1) = 0.29, p = .587 \). Furthermore, the model was not statistically significant, \( \chi^2(2) = 5.59, p = .061 \), and only explained an additional 0.8% of the variance in treatment dropout (i.e., 16.2% total), and correctly classified 68.2% of cases. Therefore, baseline coping self-efficacy significantly predicted treatment dropout, but not change in self-efficacy.

**Discussion**

The aim of this study was to examine whether self-efficacy predicted treatment outcome in an adult eating disorder outpatient program. Specifically, we were interested in whether baseline self-efficacy, and changes in self-efficacy during the first 6 weeks of treatment, were predictive of EoT symptom severity and premature treatment dropout.

**Self-efficacy as a predictor of EoT symptom severity (EDE-Q)**

The results of this study showed that changes in self-efficacy during the first 6 weeks of eating disorder treatment inversely predicted EoT symptom severity, even when controlling for baseline measures of eating disorder symptom severity, and negative emotions (i.e., depression, anxiety, and stress). These findings suggest that patients who demonstrate improvements in their self-efficacy (i.e., feel more confident in their abilities) early in treatment are more likely to present with less severe symptoms at the EoT, and patients who demonstrate reductions in their self-efficacy could be at risk of developing more severe eating disorder symptoms at the EoT.

Our results are consistent with the only other eating disorder study that has examined changes in self-efficacy as a predictor of outcome (Carter et al., 2012). These authors found that a 3-item, non-validated measure, which included one question related to self-efficacy change over the first 4 weeks of treatment, predicted relapse of anorexia nervosa symptoms at EoT. Furthermore, our results are consistent with two non-eating disorder studies which found that increases in self-efficacy over the course of treatment...
predicted anxiety and alcohol-related symptom improvement at EoT (Black et al., 2012; Bouchard et al., 2007). On the other hand, our results are inconsistent with one meditational analysis that found changes in self-efficacy during treatment did not predict outcome in a cognitive therapy treatment for anxiety (Hoffart, 1998).

Although our results supported our hypothesis that self-efficacy change would predict EoT symptom severity, baseline self-efficacy did not predict EoT symptom severity. This finding was inconsistent with three previous studies that found baseline self-efficacy was a predictor of eating disorder treatment outcome (Goddard et al., 2013; Pinto et al., 2008; Steele et al., 2011). Of note, two of these studies did not use validated measures of self-efficacy (Goddard et al., 2013; Steele et al., 2011), and the third measured a very specific sub-type of self-efficacy, which differed from the more general construct we examined (Pinto et al., 2008). Therefore, it is possible that our finding is valid (i.e., baseline self-efficacy is not a useful predictor of EoT symptom severity). One explanation for this finding is that self-efficacy may be high for some individuals at the start of treatment, but they may lose confidence in their abilities as treatment progresses, and this deterioration in self-efficacy may ultimately predict poor EoT outcomes (Brown et al., 2014).

**Self-efficacy as a predictor of premature treatment dropout**

The results of this study also demonstrated that baseline self-efficacy was a predictor of treatment dropout. Although there are no previous studies that have examined self-efficacy as a predictor of eating disorder treatment dropout, there is evidence that low self-efficacy predicts dropout from physical activity programs in those with depression (Vancampfort et al., 2015).

Although baseline self-efficacy was a predictor of treatment dropout, change in self-efficacy did not predict dropout. Interestingly, this differed from our finding that change in self-efficacy predicted EoT symptom severity. This inconsistency may be explained by the difference between premature dropout and EoT symptom severity as outcome measures. Although a relationship was found between these two measures of treatment outcome ($r = .45, p = .002$), these variables represent different constructs, each with their own set of predictor variables. One hypothesis to explain this incongruence is that those with negative changes in self-efficacy may not dropout of treatment (despite their symptoms not improving) because they lack confidence in their own abilities, and as a result, are over-reliant on external loci of control, such as treatment programs (even if those programs do not lead to symptom improvement; Waller, 2012).

Our study has several limitations. First, due to the small sample size and lack of a randomized design, this data must be viewed as hypothesis generating and observational in nature, and therefore, does not allow for
conclusions related to a possible causal association between self-efficacy and treatment outcome. It is also possible that the significant association to outcome may be better explained by another variable that was not measured. Second, the self-report outcome measures and subjective nature of “treatment dropout” are subject to bias; however, the outcome measures were valid and reliable, and the definition of dropout was based on established criteria (Fassino et al., 2009). Third, we did not have complete data for 10 participants (who were not included in the analysis). Although we had a relatively high percentage of complete data (83.1%), the missing data must be acknowledged given the small sample size. Lastly, without longer-term follow-up, it is impossible to determine whether self-efficacy predicts poor outcome beyond symptom severity at the EoT (e.g., risk of relapse).

Despite these limitations, this study is the first to use a validated scale to (a) examine self-efficacy as a predictor of treatment outcome in an outpatient eating disorder treatment setting, and (b) analyze the impact of self-efficacy change during the course of eating disorder treatment. For these reasons, our findings are novel and potentially important for generating new hypotheses for future research. The results highlight the relevance of self-efficacy in eating disorder research, especially since this construct could be a modifiable predictor of treatment outcome early in the treatment process (i.e., unlike static variables such as pretreatment BMI and duration of illness; Clarke et al., 2014). Rapid response to eating disorder treatment has been shown to be a robust predictor of EoT and follow-up outcomes (Linardon, Brennan, & de la Piedad Garcia, 2016; Vall & Wade, 2015), so exploring potential mediators of early response is warranted. To this point, our findings would justify exploring the hypothesis that early changes in efficacy beliefs mediate early treatment response, which in turn mediates EoT outcomes. This hypothesis is supported by a large anxiety treatment study, which performed a directionality analysis and found that improvements in self-efficacy predicted improvements in anxiety symptoms over the course of treatment, and not vice versa (Brown et al., 2014). Further support comes from a study that found early responders to binge eating disorder treatment differed from non-early responders in their level of confidence that they would be successful in the treatment process (i.e., an indication of higher self-efficacy), the former being more confident (Safer & Joyce, 2011).

In addition to exploring the interaction between self-efficacy and early treatment response, we would also recommend exploring the hypothesis that these two variables and motivation to change are meaningfully related. Support for this hypothesis comes from Waller (2012) and Vall and Wade (2015) who point out that even though motivation to change is a significant predictor of outcome, attempts to improve patients’ motivation have been mostly ineffective at improving EoT outcomes. Vall and Wade (2015) suggest that one possible explanation for this finding is that self-efficacy mediates the
effect of motivation to change on treatment outcome. In other words, if one is “ready to change” (motivation), but they are not “confident they can change” (self-efficacy), attempts to enhance motivation may be ineffective without a corresponding enhancement of self-efficacy. They base this hypothesis on their finding that self-efficacy was identified as a better predictor of outcome than motivation to change across several studies (e.g., Steele et al., 2011).

Should future research demonstrate a causal relationship between early improvements in self-efficacy and treatment outcome, the development of self-efficacy enhancement interventions would be warranted. To date, no studies have attempted to specifically improve self-efficacy in eating disorder treatment (Steele et al., 2011), and similarly, very few non-eating disorder studies have tried to directly enhance self-efficacy (Litt, Kadden, & Petry, 2013; Strecher et al., 1986).

Given the dearth of effective self-efficacy enhancement interventions, social psychology may provide a theoretical basis for prospective clinical advancements (Bandura, 1977; Brown et al., 2014). One potential area of exploration is the enhancement of behavioral mastery early in treatment (e.g., by reinforcing early treatment successes and reframing early treatment failures; Bandura, 1977; DiClemente, Marinilli, Singh, & Bellino, 2001). In one study, a treatment for marijuana use disorder aimed to enhance behavioral mastery (and secondarily self-efficacy) by reinforcing and improving therapy homework completion (Litt et al., 2013). Although the intervention effectively improved homework completion, there were no resultant improvements in self-efficacy (Litt et al., 2013). Even though this strategy was ineffective, other approaches for improving behavioral mastery may warrant further exploration. Another area of theoretical interest is vicarious mastery, or modeling, which involves enhancing self-efficacy through observing, or learning from those who have been successful in treatment (e.g., a recovered peer coach; Chinman et al., 2014; Strecher et al., 1986).

Contemplation of enhancing self-efficacy also raises a broader question about the current eating disorder treatment paradigm. Perhaps controversially, some argue that the “medicalization” of disordered behaviors, such as overeating, smoking, and substance use, has helped to decrease stigma, and facilitate advancements in research, but it may have also unintentionally diminished personal control by “shifting the locus of responsibility in changing the behavior from the client to the therapist (or medication); from the efficacy of the individual to the efficacy of the treatment” (Strecher et al., 1986). In line with this perspective, some argue that enhancement of self-efficacy will require a cultural shift in the degree of emphasis that patients (and clinicians) place on medicalized management of behavior change (Hansen, 2011; Lewis, 2015; Strecher et al., 1986).
Conclusion

These findings add to a growing literature that suggests self-efficacy is a potentially important, but under-examined, clinical construct in the treatment of eating disorders. Recommendations for future research include exploring the interaction between early treatment response and self-efficacy.

Note

1. A recent review of rapid treatment response defined early response as any time within the first half of treatment (range in the reviewed studies was 4–8 weeks). We used 6 weeks because the maximum time in our treatment program is 32 weeks, which is longer than many of the 20-week treatment studies that use a 4-week definition of early response (Linardon et al., 2016).

References


Hansen, K. (2011). *Brain over binge: Why I was bulimic, why conventional therapy didn’t work, and how I recovered for good*. Phoenix, AZ: Camellia Publishing.


