On What Do Therapists Agree? Assessing Therapist Evaluations of Emotion Regulation Strategy Effectiveness

Matthew W. Southward^{1,2}, Anne C. Wilson^{1,3}, & Jennifer S. Cheavens¹

¹Department of Psychology, The Ohio State University

²Department of Psychology, University of Kentucky

³Department of Psychiatry and Behavioral Sciences, University of California – Davis

Author Note

Matthew W. Southward: <https://orcid.org/0000-0002-5888-2769>

Jennifer S. Cheavens: <https://orcid.org/0000-0002-3778-9346>

We have no known conflicts of interest to disclose.

Correspondence concerning this article should be addressed to Matthew W. Southward, University of Kentucky, 343 Waller Ave., Suite 303, Lexington, KY 40504. Phone: 859-562-1569. Email: southward@uky.edu

This work was partially supported by The Ohio State University Center for Clinical and Translational Science under Grant #TL1TR001069 (to M.W.S.). The funding source had no involvement in the conduct or preparation of the research.

The data that support the findings of this study are available from the corresponding author upon reasonable request.

In press at Psychology and Psychotherapy: Theory, Research, and Practice

Practitioner Points

1. There is general consensus among practicing therapists that problem-solving is the most effective emotion regulation strategy and expressive suppression is the least effective.
2. However, CBT-oriented therapists rated acceptance and distraction as more effective than non-CBT-oriented therapists.
3. Non-CBT-oriented therapists rated emotional expression and gathering information as more effective than CBT-oriented therapists.
4. Years of experience were unrelated to ratings of emotion regulation strategy effectiveness.

Abstract

Objective: To develop more unified, process-based, and disseminable psychotherapy treatments, it is important to determine if there is consensus among therapists regarding intervention strategies. Design: Because emotion regulation is a cornerstone of modern treatments and a thriving area of clinical research, we assessed therapists' ratings of the effectiveness of commonly studied emotion regulation strategies. Methods: Therapists ($n = 582$) read eleven vignettes describing stressful scenarios and rated the effectiveness of ten emotion regulation strategies in each scenario. Results: Across therapists, we found general consensus regarding the most (i.e., problem-solving) and least (i.e., concealing emotions) effective strategies. Cognitive/behavioral/third-wave therapists rated acceptance and distraction as more effective, and emotional expression and gathering information as less effective, than other therapists, $F_s > 4.20$, $p_s < .05$, whereas hours of clinical experience were generally unrelated to strategy effectiveness ratings. Conclusions: We discuss what these points of agreement and relative disagreement among therapists reveal about a more unified, process-based treatment approach and how these results can guide emotion regulation research.

Keywords: psychotherapy; cognitive-behavior therapy; clinical experience; national survey; emotion regulation

On What Do Therapists Agree? Assessing Therapist Evaluations of Emotion Regulation Strategy Effectiveness

Despite global efforts to address the burden of mental health, almost one billion people around the world report disability due to a psychiatric disorder at some point in their lives (GBD 2017 Disease and Injury Incidence and Prevalence Collaborators, 2018). To address this burden, psychologists have called for the development of psychological treatments that involve active, efficient, and disseminable mechanisms (Hofmann & Hayes, 2019) based on the shared wealth of knowledge from therapists across theoretical orientations (Goldfried, 2019). Progress in this area has been slow, in part because there has been a long-standing translational gap between how psychotherapy is practiced and how it is researched (Addis, 2002; Castonguay et al., 2015; Kazdin, 2008). Researchers lament how therapists rely more on clinical experience than the research literature to guide clinical decision-making (Stewart & Chambless, 2007), and therapists highlight the lack of collaborative opportunities provided by researchers to contribute to clinical research (Goldfried, 2019; Kazdin, 2008; National Institute of Mental Health Information Resource Center). Further, therapists with different theoretical orientations have difficulty even agreeing on a common language to describe potentially active mechanisms (Norcross & Thomas, 1988). Because of these gaps both between therapists and researchers and among therapists with different theoretical orientations, there is a dearth of knowledge on which common treatment mechanisms are most effective.

Emotion Regulation as a Mechanism of Treatment

One particularly impactful transtheoretical mechanism of treatment is emotion regulation. Emotion regulation is the process by which people influence the intensity, duration, and quality of emotional experiences (Gross, 2015). It is a vital and thriving area of research that

incorporates interdisciplinary findings to describe and predict the emotional, cognitive, behavioral, physiological, and social outcomes of various emotion regulation strategies (Gross, 2015). Treatment developers have explicitly made emotion regulation the cornerstone of many effective cognitive-behavior treatments (CBTs) for psychiatric disorders (e.g., Dialectical Behavior Therapy; Linehan, 1993; Unified Protocol; Barlow et al., 2018; Cognitive Therapy; Beck et al., 1979). Further, psychodynamic therapy (Aldao et al., 2015; Rabinovich, 2016), Emotion-Focused Therapy (Pos & Greenberg, 2012), and interpersonal therapy (Lipsitz & Markowitz, 2013) include certain emotion regulation skills (e.g., ego control and resiliency, emotion awareness and expression regulation, and interpersonal emotion regulation, respectively) as putative mechanisms of treatment.

However, the vast majority of basic emotion regulation research is conducted in non-therapeutic settings with non-treatment-seeking participants, so it is often unclear how well these findings generalize to psychotherapy patients. For example, basic researchers often use designs in which participants regulate their emotions in response to experimental stimuli (e.g., negatively-valenced images; Bonanno et al., 2004; Southward & Cheavens, 2017) or retrospectively report their use of emotion regulation strategies (Dixon-Gordon et al., 2015). These assessments of emotion regulation are thought to generalize to real world contexts. However, it is unclear if they do, in part because researchers rarely solicit input from therapists or other professionals providing direct patient care. By soliciting therapists' expertise in rating the effectiveness of emotion regulation strategies, researchers can determine which strategies are most likely to translate between the laboratory and the clinic so the functioning of these strategies in clinical populations can be more comprehensively understood (Chambless, 2014; Eubanks et al., 2018; Eubanks-Carter et al., 2010; Goldfried et al., 2014; Tasca et al., 2015).

Therapist Ratings of Emotion Regulation

Researchers have conducted several studies to assess how frequently therapists use certain strategies with their patients. Although strategies that enhance the therapeutic relationship are typically the most frequently endorsed (e.g., empathizing with patients; communicating unconditional positive regard), the next most common strategies therapists use include cognitive restructuring; planning healthy, fun, or more effective behaviors; and promoting greater awareness of the patient's behaviors, emotions, and thoughts (Cook et al., 2010; Mussell et al., 2000; Thoma & Cecero, 2009). Thus, although there seems to be some consensus in the findings from both basic research and reports of in-session behaviors that cognitive restructuring and reappraisal are important strategies, less is known about points of agreement regarding other strategies. It is noteworthy that only one group of researchers (Mussell et al., 2000) explicitly assessed therapists' use of distraction and none of the researchers assessed therapists' recommendations regarding expressive suppression, despite their prominence in basic emotion regulation research (Sheppes et al., 2014; Bonanno et al., 2004; Southward & Cheavens, 2017). Assessing different sets of strategies makes it impossible to bridge the research-practice gap, both in terms of directly utilizing feedback from therapists in designing basic research studies and informing clinical practice based on basic research. Further, although the frequency of strategy use provides an understanding of what therapists do, it does not directly address how effective they believe certain strategies are.

To address this issue, researchers have explicitly asked therapists to rate the effectiveness of various therapeutic strategies in specific situations. Researchers have used the Expert Consensus Guideline Series (Frances et al., 1998) to iteratively (a) solicit examples of difficult therapeutic situations, (b) solicit potential responses to those situations, and (c) ask expert

therapists, designated by others, to rate the effectiveness of those responses. In situations involving interpersonal problems between young adults and their parents, most expert therapists rated exploring patients' emotional experiences and providing validation as highly effective strategies (Eubanks-Carter et al., 2010). In situations involving ruptures of the therapeutic alliance, most expert therapists rated exploring the rupture and validating the patient as highly effective strategies (Eubanks et al., 2018). Although expert therapists can presumably provide the highest quality data on therapeutic situations, it is not always clear what characteristics define expert therapists (Hill et al., 2017).

Further, not all therapists rate strategies similarly. For instance, therapists with a primary cognitive-behavioral or eclectic theoretical orientation reported using cognitive, behavioral, and constructivist strategies more frequently than therapists with a primary psychodynamic or humanistic orientation (Thoma & Cecero, 2009). Given that different theoretical orientations are associated with different mechanisms of change in treatment, they will likely emphasize certain emotion regulation strategies over others. Similarly, when rating strategy effectiveness, therapists with a cognitive and/or behavioral orientation rated hope-promoting, problem-solving, and coping strategies as more effective, and identifying patterns in the patients' behaviors as less effective, than therapists with other orientations (Eubanks et al., 2018; Eubanks-Carter et al., 2010). Further, therapists' clinical experience may influence how effective they view different strategies to be. Although evidence seems to suggest that clinical experience contributes to the development of certain therapeutic skills (Hill et al., 2015), no studies to our knowledge have explicitly assessed whether or how clinical experience contributes to therapists' evaluations of the effectiveness of different emotion regulation strategies. Identifying points of agreement among therapists with different theoretical orientations and levels of experience would inform

which strategies are most promising to test in more unified, process-based treatments.

Current Study

The primary aim of the current study was to determine the degree of consensus among practicing psychotherapists and trainees providing therapy regarding the effectiveness of relatively well-researched emotion regulation strategies. We first assessed which single emotion regulation strategy, of ten options drawn from the literature (Southward et al., 2018), therapists and trainees believed would be most effective in eleven different scenarios. Second, we asked therapists to rate how effective each emotion regulation strategy would be in improving patients' mood in each scenario. We hypothesized (1) that no single emotion regulation strategy would be rated as the most effective strategy across all scenarios. Further, we hypothesized (2) that therapists' ratings of the effectiveness of all emotion regulation strategies would vary across scenarios. In contrast, we hypothesized (3) that some strategies (i.e., problem-solving, reappraisal, distraction) would be rated as significantly more effective than others (i.e., concealing emotions, leaving a situation) across scenarios. Given the potential for differences in strategy ratings by therapists' theoretical orientation and clinical experience, we explored (a) whether strategy ratings differed between therapists with a primary cognitive, behavioral, or third-wave theoretical orientation and those with other orientations; and (b) whether clinical experience was associated with strategy mean ratings and variability.

Materials and Methods

Participants

We recruited 582 currently practicing therapists and trainees providing psychotherapy from across the United States. Participants were 41.85 ($SD = 14.01$) years old on average. Participants identified their gender as female ($n = 441$; 75.8%), male ($n = 132$; 22.7%),

transgender ($n = 5$; 0.9%), or other/missing ($n = 3$; 0.5%). Participants also identified as Caucasian ($n = 501$; 86.1%), East Asian ($n = 23$; 4.0%), African-American ($n = 16$; 2.7%), Latinx ($n = 14$; 2.4%), South Asian ($n = 8$; 1.4%), Native American ($n = 2$; 0.3%), Middle Eastern ($n = 1$; 0.2%), or other/missing ($n = 16$; 2.7%). One participant (0.2%) did not report their racial/ethnic background. Approximately half of participants ($n = 321$; 55.2%) identified their primary theoretical orientation as cognitive ($n = 106$; 18.2%), behavioral ($n = 145$; 24.9%), or third wave/acceptance-based ($n = 70$; 12.0%). The other half of participants ($n = 261$; 44.8%) identified their primary theoretical orientation as existential ($n = 18$; 3.1%), interpersonal ($n = 39$; 6.7%), psychodynamic ($n = 87$; 14.9%), Rogerian ($n = 24$; 4.1%), or other ($n = 93$; 16.0%). Participants reported conducting a median of 4,000 face-to-face intervention hours (interquartile range: 954.50-10,125.00). Four participants provided implausibly large estimates of their therapy hours (e.g., 120,000 – 375,000 total face-to-face hours over a 20-year career). We winsorized these values to the largest plausible value reported by other participants (i.e., 100,000).

Procedure

Based on an a priori power analysis (Faul et al., 2009) assuming $\alpha = .05$, power = .80, and $r_{\text{repeated measures}} = .50$, at least 432 participants were necessary to detect small-sized effects ($f = .10$; partial $\eta^2 = .01$). To obtain a sample of participants from across the United States, we sent email invitations to participate in the study to all clinical psychology graduate programs accredited by the American Psychological Association; therapists with contact information on clinical psychology listservs, including the Association for Behavioral and Cognitive Therapies, the American Psychoanalytic Association, the International Centre for Excellence in Emotionally Focused Therapy, and the Sensorimotor Psychotherapy Institute; as well as therapists from all 50 states identified by conducting Google searches with the search terms “psychotherapy” +

“[state]”. We recruited participants beyond our suggested power analysis to account for dropout and missing responses and to ensure coverage of the entire United States. Potential participants were eligible for the study if they had any experience providing psychotherapy to patients. All potential participants first read a brief description of the study and were instructed to follow a link to the main study page. Potential participants were presented with an informed consent form; those who consented to participate then completed all measures above in a random order. Participants who chose to provide their email addresses were entered in a drawing for one of two \$20 Amazon gift cards. All study procedures were approved by the local university institutional review board.

Measures

Demographics

Participants self-reported their age, gender, racial identity, primary theoretical orientation from the list of options above, and an estimate of their total face-to-face intervention hours.

Emotion Regulation Vignettes

We presented participants with eleven vignettes describing stressful situations, including some specific to college students. These vignettes describe a range of situations including interpersonal stressors (e.g., a fight with a romantic partner; not being invited to a gathering of new friends), academic stressors (e.g., being accused of cheating on a test; failing a midterm), financial stressors (e.g., waiting on a loan), and physical illness stressors (e.g., developing mononucleosis). All aspects of the vignettes were retained from Southward et al. (2018), except the vignettes in the current study were written from the third-person perspective to describe hypothetical situations participants’ patients were experiencing.

Participants in the current study were asked to first identify which of ten emotion

regulation strategies would be most effective for a patient facing each situation: (1) acceptance (e.g., of one's emotions, the situation, others, oneself); (2) concealing emotions; (3) distraction (e.g., doing something fun, exercise, thinking about something else); (4) emotional expression; (5) gathering more information or reflecting on what happened in the situation; (6) improving a relationship (e.g., doing something nice for someone, spending time with someone); (7) leaving the situation or removing oneself from one's commitments; (8) problem-solving (e.g., actively changing the situation, making a plan to address the main issue); (9) reappraisal (e.g., examining evidence for one's thoughts, thinking about oneself or the situation in a different way); (10) seeking emotional support or advice from others (e.g., a friend, family member, advisor, counselor, or through prayer). These strategies were drawn from the list of strategies participants in Southward et al. (2018) described in their free responses to the vignette prompts above. Then, participants in the current study were asked to rate how effective they thought each emotion regulation strategy would be at helping a patient feel better, from 0 (*not effective*) to 100 (*extremely effective*).

Analytic Method

To test Hypothesis 1, we calculated the sum of participants who reported each strategy would be the most effective for a patient to use in each situation and compared the most reported strategies across situations. To test Hypothesis 2, we conducted an omnibus repeated measures ANOVA for all emotion regulation strategies, entering scenario, strategy, and the scenario $\times$ strategy interaction as within-subjects factors. We conducted post hoc tests comparing within-person/between-scenario variability for each strategy by calculating the within-subjects variances of strategy effectiveness across scenarios. Because each participant rated strategy effectiveness in multiple scenarios, these are within-person scores. Because these scores refer to variability

between multiple scenarios, these may also be referred to as between-scenario scores. In an effort to most clearly communicate each result, we have chosen to use one or the other term, depending on the focus of the result. Because these scores were positively skewed, we applied a square root transformation. We then conducted paired *t*-tests to examine differences in strategy variability. To test Hypothesis 3, we conducted a single repeated measures ANOVA including emotion regulation strategies and scenarios as within-subjects factors. We conducted post hoc tests comparing the average effectiveness rating among all emotion regulation strategies. Finally, to test exploratory hypothesis (a), we repeated the analyses above and entered theoretical orientation (CBT vs. non-CBT) as a between-subjects factor. To test exploratory hypothesis (b), and because the variables of interest were non-normally distributed, we examined Spearman correlations between therapist experience and strategy variability and average effectiveness. All analyses were conducted in SPSS Version 25 (IBM Corp., 2017). To control the false discovery rate when conducting multiple tests, we applied the Benjamini-Hochberg procedure (Benjamini & Hochberg, 1995) with $q^* = .05$ to each set of familywise analyses.

Results

Hypothesis 1: No Single Emotion Regulation Strategy Will Be Rated as the Most Effective Across All Scenarios

Across the majority of scenarios ($n = 8$; 73%), problem-solving was selected as the single strategy therapists thought would be most effective (Table S1, Supplemental Online Materials). However, problem-solving was only selected by the majority of participants (69-90%) in three scenarios; it was selected by a plurality of participants (30-40%) in five others. In three further scenarios, acceptance, reappraisal, and gathering information were selected as the strategy most likely to be effective by a plurality of participants (19-32%).

Hypothesis 2: Effectiveness Ratings of Emotion Regulation Strategies Will Vary by Scenario

The within-subject scenario $\times$ strategy effect was significant in the omnibus model, $F(49.22, 17867.38) = 135.53, p < .01$, partial $\eta^2 = .27$ (Figure S1). The within-subject scenario effect was also significant in all ten models of emotion regulation strategies, $F_s > 9.90, p_s < .01$, partial $\eta^2_s > .02$ (Tables 1, S2). When comparing the within-subject variances of effectiveness ratings from each participant across situations, the strategy of gathering more information demonstrated significantly greater variability than all other strategies, $t_s > 3.40, p_s < .01$, whereas concealing emotions demonstrated significantly lower variability than all other strategies, $t_s > 26.00, p_s < .01$ (Table S3).

Hypothesis 3: Emotion Regulation Strategies Will Differ in Average Effectiveness Ratings

The overall within-subject effect of strategy was significant, $F(6.03, 17867.38) = 778.19, p < .01$, partial $\eta^2 = .68$. When examining post hoc comparisons, problem-solving was rated as the most effective strategy on average across all scenarios ($M = 67.13, SE = .77$; Tables 1, S4, S5). Five other strategies were rated as significantly less effective than problem-solving, $p_s < .01$, but similarly effective as each other, $p > .05$ for at least one comparison: acceptance, emotional expression, gathering information, reappraisal, and seeking emotional support/advice (M range: 46.40-51.85; Tables 1, S4, S5). Three strategies were rated as significantly less effective than the above-mentioned strategies, $p_s < .01$, but similarly effective as each other, $p > .05$ for at least one comparison: distraction, improving relationships, and leaving the situation (M range: 19.65-21.84; Tables 1, S4, S5). Finally, concealing emotions was rated as the least effective strategy on average ($M = 5.55, SE = .37$; Tables 1, S4, S5).

Exploratory Hypotheses: Do Strategy Effectiveness Ratings Differ by Theoretical

Orientation or Therapist Experience?

Demographics

We first explored any demographic differences between therapists who identified their primary theoretical orientation as CBT ($n = 321$) and those who identified their primary theoretical orientation as non-CBT ($n = 261$). CBT therapists ($M = 38.36$, $SD = 12.20$) were significantly younger than non-CBT therapists ($M = 46.17$, $SD = 14.88$), $t(488.58) = 6.75$, $p < .01$, 95% CI [5.54, 10.09], $d = .57$. There were no significant differences in the proportion of therapists who identified as female between CBT (74.4%) and non-CBT (77.8%) therapists, $\chi^2(1) = .91$, $p = .34$, 95% CI [-3.63, 10.25]. A significantly lower proportion of therapists identified as Caucasian among CBT therapists (83.1%) than non-CBT therapists (90.0%), $\chi^2(1) = 5.78$, $p = .02$, 95% CI [1.29, 12.35]. Consistent with the age differences above, CBT therapists ($M = 7171.83$, $SD = 11807.70$) reported significantly fewer face-to-face intervention hours than non-CBT therapists ($M = 12715.55$, $SD = 18661.41$), $t(420.61) = 4.17$, $p < .01$, 95% CI [2929.65, 8157.79], $d = .36$.

Hypothesis 1a

CBT and Non-CBT therapists agreed on the most effective strategy in five out of eleven scenarios (45%; Table S6). These five scenarios tended to be characterized by intrapersonal contexts that elicited a single intense emotion (Table S7). When therapists from these groups did agree on the most effective strategy for a scenario, they agreed the strategy was problem-solving. CBT therapists identified reappraisal ($n = 1$; 9%) and acceptance ($n = 2$; 18%) as the most effective strategy to use when they did not choose problem-solving. Non-CBT therapists

identified emotional expression ($n = 3$; 27%) and gathering more information ($n = 3$; 27%) as the most effective strategies when they did not choose problem-solving.

Hypothesis 2a

CBT and non-CBT therapists differed in the between-scenario variability of their effectiveness ratings of emotional expression, $F(9.18, 3535.84) = 3.40, p < .01$, partial $\eta^2 = .009$, distraction, $F(7.89, 2695.76) = 2.53, p = .01$, partial $\eta^2 = .007$, and reappraisal, $F(9.37, 3550.81) = 2.29, p = .01$, partial $\eta^2 = .006$ (Table S8). CBT therapists reported greater variability in their ratings of emotional expression and distraction, but lower variability in their ratings of reappraisal than non-CBT therapists. When controlling for age and ethnicity, the interactions for emotional expression, $F(9.19, 3491.72) = 2.70, p < .01$, partial $\eta^2 = .007$, and emotional support/advice, $F(8.94, 3371.19) = 2.04, p = .03$, partial $\eta^2 = .005$, were significant.

Hypothesis 2b

Therapist experience was related to greater between-scenario variability in seeking emotional support, $\rho = .15, p < .01$, gathering information, $\rho = .14, p < .01$, and reappraisal, $\rho = .13, p = .01$ (Table S9). Therapist experience was unrelated to variability in all other strategies, $\rho_s < |.09|, p_s > .12$.

Hypothesis 3a

The between-subjects scenario $\times$ theoretical orientation interactions were significant for acceptance, distraction, emotional expression, and gathering information, $F_s > 4.20, p_s < .05$, partial $\eta^2_s > .01$ (Tables 2, S10). CBT therapists rated acceptance and distraction as more effective on average than non-CBT therapists, whereas non-CBT therapists rated emotional expression and gathering information as more effective than non-CBT therapists. Despite these differences, both groups tended to rate problem-solving as the most effective strategy; followed

by emotional expression, gathering information, reappraisal, seeking emotional support/advice, and acceptance; followed by distraction, improving the relationship, and leaving the situation; with concealing emotions being rated as the least effective strategy on average by both groups. When controlling for age and ethnicity, the interactions for distraction, $F(1, 371) = 13.61, p < .01$, partial $\eta^2 = .04$, emotional expression, $F(1, 380) = 74.44, p < .01$, partial $\eta^2 = .16$, gathering information, $F(1, 375) = 24.28, p < .01$, partial $\eta^2 = .06$, problem-solving, $F(1, 380) = 6.81, p = .01$, partial $\eta^2 = .02$, and emotional support, $F(1, 377) = 9.60, p < .01$, partial $\eta^2 = .03$, were significant.

Hypothesis 3b

Therapist experience was related to lower average effectiveness ratings of distraction, $\rho = -.14, p < .01$, and higher average effectiveness ratings of problem-solving, $\rho = .10, p = .02$ (Table S11). Therapist experience was unrelated to all other average effectiveness ratings, $\rho s < |.09|, ps > .05$.

Discussion

In the present study, we examined practicing therapists' and trainees' ratings of emotion regulation strategy effectiveness in eleven hypothetical scenarios. Consistent with our hypotheses, we found that no single strategy was rated as most effective across all scenarios, in line with the current research consensus that no single strategy is uniformly effective across all scenarios (Aldao, 2013; Bonanno & Burton, 2013; Southward et al., 2019), and that therapists' ratings of each strategy's effectiveness varied across scenarios. Also consistent with our hypotheses, when averaged across all scenarios, some strategies were rated as significantly more effective than others. Exploratory analyses revealed that therapists with different theoretical orientations (i.e., CBT vs. non-CBT) generally agreed on the most (i.e., problem-solving) and

least (i.e., concealing emotions) effective strategies across scenarios. However, therapists with different theoretical orientations rated the effectiveness of certain strategies differently (i.e., acceptance, distraction, emotional expression, and gathering information). Therapists with different levels of clinical experience tended to rate the effectiveness of most strategies similarly. These findings suggest that, when determining which strategies would be effective for a patient in a stressful situation, therapists' judgments are influenced by both situational factors and their theoretical orientation, but less so by their levels of clinical experience.

Therapist Ratings of Emotion Regulation Strategy Effectiveness Across Scenarios

The findings that no single strategy was rated as most effective across all scenarios and that therapists' ratings of each strategy's effectiveness varied across scenarios suggests that therapists used information about the context of situations when considering the effectiveness of emotion regulation strategies. Because therapists did not indicate why they believed certain strategies were effective, it is unclear which contextual factors therapists considered. Identifying which factors therapists consider when evaluating strategy effectiveness and experimentally testing the effects of strategies under these different conditions could bolster therapists' efforts to improve the emotional functioning of their patients and further demonstrate the utility of practice-oriented research.

Despite significant variability in strategy effectiveness ratings, there was general consensus among therapists with different theoretical orientations on the most (i.e., problem-solving) and least (i.e., concealing emotions) effective strategies when averaged across scenarios. Although the specific strategies are different, the finding regarding general consensus at the level of most and least effective strategies replicates previous research with therapists (Eubanks et al., 2010; Eubanks-Carter et al., 2018) and extends these results to a broader class of stressful

situations. These results can also speak to bridging the gap between researchers and therapists. For instance, in Aldao et al.'s (2010) meta-analysis, the habitual use of problem-solving demonstrated the largest negative association with psychopathology ($r = -.31$), while the habitual use of suppression, which is conceptually similar to concealing emotions, demonstrated a similar-sized but positive association with psychopathology ($r = .34$). These findings suggest therapists are considering how problem-solving and emotional concealment impact patients presenting with greater levels of psychopathology, in line with research evidence.

The Influence of Experience and Theoretical Orientation in Rating Emotion Regulation Effectiveness

Our exploratory findings on the differences between CBT and non-CBT therapists are an important step in obtaining consensus among therapists with differing theoretical orientations. CBT and non-CBT therapists tended to agree on the most effective strategy in intrapersonally-focused situations that elicited a single strong emotion. Therapists tended to disagree on the most effective strategy in more emotionally complex, interpersonal situations which may highlight the multitude of potentially useful strategies people can use in these situations.

Both CBT and non-CBT therapists demonstrated variability in their effectiveness ratings across contexts. In other words, our main finding that no single strategy was rated as most effective in all scenarios was consistent among both CBT and non-CBT therapists. We found small but statistically significant differences between therapists of different theoretical orientations in their ratings of average strategy effectiveness across scenarios for four strategies. CBT therapists tended to rate some strategies as more effective (i.e., acceptance, distraction) and others as less effective (i.e., emotional expression, gathering information) than non-CBT therapists. Given that acceptance is a core component of certain CBTs (Acceptance and

Commitment Therapy; Hayes et al., 2016), it is understandable that CBT therapists would rate it as more effective than non-CBT therapists. The difference in ratings of distraction and emotional expression may be the clearest contrast between theoretical orientations. These differences may suggest that CBT therapists prioritize strategies that reduce momentary emotional arousal, even at the risk of promoting avoidance, whereas non-CBT therapists prioritize strategies that enhance patients' emotional expressions. It should be noted that these differences were relatively small, ranging from 5-15 points on a 100-point scale. That being said, understanding therapists' implicit priorities within their theoretical orientations may help patients better navigate treatment options and help treatment researchers better target their dissemination efforts by identifying which therapists may be more receptive to these efforts.

Although we found some associations between variability in strategy effectiveness ratings and clinical experience, only the mean level of distraction was associated with clinical experience. These findings suggest that therapists with more clinical experience demonstrate somewhat greater sensitivity to situational factors when making evaluating strategy effectiveness, but that therapists tend to perceive the relative effectiveness of strategies similarly no matter their level of experience. Thus, future researchers are encouraged to collaborate with therapists to explore how the between-situation variability in patients' use of relatively more or less effective emotion regulation strategies in treatment influences both short- and long-term emotional and behavioral outcomes (e.g., Southward et al., 2018).

Limitations

The findings of the present study should be considered in light of its limitations. First, we assessed therapists' hypothetical strategy evaluations for an imagined patient. As such, we cannot say how therapists would respond to real patients. Although this design may limit the

external validity of our study, it increases the internal validity of our results by allowing us to directly compare therapist responses to the same situations. When evaluating patients' emotion regulation strategy use, therapists may consider not only contextual variables of the situation, but also patient characteristics (e.g., diagnosis). In fact, Doré and colleagues (2016) present an emotion regulation framework that explicitly considers interactions between the strategy, characteristics of the situation (i.e., whether the situation is controllable), and the individual (i.e., age, psychopathology). Testing the interactions among these variables may help to better understand optimal emotion regulation and could help therapists identify promising targets of intervention with their patients more quickly. We also did not define a timeframe for therapists to determine "effective" emotion regulation (i.e., short- vs. long-term). Some strategies that are effective at modulating affect in the short term (e.g., distraction) may not be effective for patients' long-term goals. Therefore, it will be important for future researchers to examine how therapists weigh short-term versus long-term effectiveness when working with patients. By comparing therapists with CBT and third-wave orientations to others, we obscured finer-grained differences among specific orientations. We made this decision to maximize overall statistical power due to the small sample sizes among certain orientations (e.g., existential, interpersonal, Rogerian). All participants in the current study were based in the United States, limiting the cross-cultural generalizability of these findings. Similarly, as with any large-scale, voluntary, survey-based study, we were unable to compare demographic variables between those who elected to participate and those who declined, so it is unclear how representative this sample was of therapists more broadly.

Conclusion

This is the first study to our knowledge to assess the influence of standardized situations,

theoretical orientation, and clinical experience on practicing therapists' ratings of emotion regulation effectiveness. These results can be used as a foundation to develop more unified, process-based, and widely disseminable treatments. Our results can further be used to inform which strategies may be most useful for basic and applied researchers to study. These results replicate, using a second methodological line of support, findings from basic emotion regulation research regarding the relative effectiveness of emotion regulation strategies and the influence of situational variability on strategy effectiveness. Our results demonstrate relatively small-sized but detectable differences in how therapists' theoretical orientation influences their appraisal of strategy effectiveness. As the field of psychotherapy moves to implement more process-based treatments (Hofmann & Hayes, 2019), these results may improve communication both between researchers and therapists and among therapists of different orientations by providing a shared empirical basis to understand where points of similarity and difference arise.

References

- Addis, M. E. (2002). Methods for disseminating research products and increasing evidence-based practice: Promises, obstacles, and future directions. *Clinical Psychology: Science and Practice*, 9(4), 367–378. <https://doi.org/10.1093/clipsy.9.4.367>
- Aldao, A. (2013). The future of emotion regulation research: Capturing context. *Perspectives on Psychological Science*, 8(2), 155–172. <https://doi.org/10.1177/1745691612459518>
- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review*, 30(2), 217–237. <https://doi.org/10.1016/j.cpr.2009.11.004>
- Aldao, A., Sheppes, G., & Gross, J. J. (2015). Emotion regulation flexibility. *Cognitive Therapy and Research*, 39, 263–278. <https://doi.org/10.1007/s10608-014-9662-4>
- Barlow, D. H., Farchione, T. J., Sauer-Zavala, S., Murray Latin, H., Ellard, K. K., Bullis, J. R., Bentley, K. H., Boettcher, H. T., & Cassiello-Robbins, C. (2018). *Unified protocol for transdiagnostic treatment of emotional disorders: Therapist guide*. New York, NY: Oxford University Press.
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York, NY: Guilford Press.
- Benjamini, Y., & Hochberg, Y. (1995). Controlling the false discovery rate: A practical and powerful approach to multiple testing. *Journal of the Royal Statistical Society, Series B*, 57(1), 289–300. <https://doi.org/10.1111/j.2517-6161.1995.tb02031.x>
- Bonanno, G. A., & Burton, C. L. (2013). Regulatory flexibility: An individual differences perspective on coping and emotion regulation. *Perspectives on Psychological Science*, 8(6), 591–612. <https://doi.org/10.1177/1745691613504116>

- Bonanno, G. A., Papa, A., Lalande, K. M., Westphal, M., & Coifman, K. G. (2004). The importance of being flexible: The ability to both enhance and suppression emotional expression predicts long-term adjustment. *Psychological Science*, 15(7), 482–487. <https://doi.org/10.1111/j.0956-7976.2004.00705.x>
- Castonguay, L. G., Eubanks, C. F., Goldfried, M. R., Muran, J. C., & Lutz, W. (2015). Research on psychotherapy integration: Building on the past, looking to the future. *Psychotherapy Research*, 25(3), 365–382. <https://doi.org/10.1080/10503307.2015.1014010>
- Chambless, D. L. (2014). Can we talk? Fostering interchange between scientists and practitioners. *Behavior Therapy*, 45(1), 47–50. <https://doi.org/10.1016/j.beth.2013.08.002>
- Cook, J. M., Biyanova, T., Elhai, J., Schnurr, P. P., & Coyne, J. C. (2010). What do psychotherapists really do in practice? An internet study of over 2,000 practitioners. *Psychotherapy*, 47(2), 260–267. <https://doi.org/10.1037/a0019788>
- Dixon-Gordon, K. L., Aldao, A., & de los Reyes, A. (2015). Emotion regulation in context: Examining the spontaneous use of strategies across emotional intensity and type of emotion. *Personality and Individual Differences*, 86, 271–276. <https://doi.org/10.1016/j.paid.2015.06.011>
- Doré, B. P., Silvers, J. A., & Oschner, K. N. (2016). Toward a personalized science of emotion regulation. *Social and Personality Psychology Compass*, 10(4), 171–187. <https://doi.org/10.1111/spc3.12240>
- Eubanks, C. F., Burckell, L. A., & Goldfried, M. R. (2018). Clinical consensus strategies to repair ruptures in the therapeutic alliance. *Journal of Psychotherapy Integration*, 28(1), 60–76. <https://doi.org/10.1037/int0000097>
- Eubanks-Carter, C., Burckell, L. A., & Goldfried, M. R. (2010). Clinical consensus strategies for

- interpersonal problems between young adults and their parents. *Journal of Consulting and Clinical Psychology*, 78(2), 212–224. <https://doi.org/10.1037/a0018557>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Frances, A., Kahn, D. A., Carpenter, D., Ross, R., & Docherty, J. P. (1998). The expert consensus guideline project: A new method of establishing best practice. *Journal of Practical Psychiatry and Behavioral Health*, 2, 295–306.
- GBD 2017 Disease and Injury Incidence and Prevalence Collaborators. (2018). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017. *Lancet*, 392(10159), 1789–1858. [https://doi.org/10.1016/S0140-6736\(18\)32279-7](https://doi.org/10.1016/S0140-6736(18)32279-7)
- Goldfried, M. R. (2019). Obtaining consensus in psychotherapy: What holds us back? *American Psychologist*, 74(4), 484–496. <https://doi.org/10.1037/amp0000365>
- Goldfried, M. R., Newman, M. G., Castonguay, L. G., Fuertes, J. N., Magnavita, J. J., Sobell, L., & Wolf, A. W. (2014). On the dissemination of clinical experiences in using empirically supported treatments. *Behavior Therapy*, 45(1), 3–6. <https://doi.org/10.1016/j.beth.2013.09.007>
- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry*, 26(1), 1–26. <https://doi.org/10.1080/1047840X.2014.940781>
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2016). *Acceptance and commitment therapy: The process and practice of mindful change* (2nd ed.). Guilford Press.

- Hill, C. E., Baumann, E., Shafran, N., Gupta, S., Morrison, A., Pérez Rojas, A. E., Spangler, P. T., Griffin, S., Pappa, L., & Gelso, C. J. (2015). Is training effective? A study of counseling psychology doctoral trainees in a psychodynamic/interpersonal training clinic. *Journal of Counseling Psychology*, 62(2), 184–201. <https://doi.org/10.1037/cou0000053>
- Hill, C. E., Spiegel, S. B., Hoffman, M. A., Kivlighan, D. M., & Gelso, C. J. (2017). Therapist expertise in psychotherapy revisited. *The Counseling Psychologist*, 45(1), 7–53. <https://doi.org/10.1177/0011000016641192>
- Hofmann, S. G., & Hayes, S. C. (2019). The future of intervention science: Process-based therapy. *Clinical Psychological Science*, 7(1), 37–50. <https://doi.org/10.1177/2167702618772296>
- IBM Corp. (2017). IBM SPSS Statistics for Macintosh, Version 25.0. Armonk, NY: IBM Corp.
- Kazdin, A. E. (2008). Evidence-based treatment and practice: New opportunities to bridge clinical research and practice, enhance the knowledge base, and improve patient care. *American Psychologist*, 63(3), 146–159. <https://doi.org/10.1037/0003-066X.63.3.146>
- Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York, NY: Guilford Press.
- Lipsitz, J. D., & Markowitz, J. C. (2013). Mechanisms of change in interpersonal therapy (IPT). *Clinical Psychology Review*, 33(8), 1134–1147. <https://doi.org/10.1016/j.cpr.2013.09.002>
- Mussell, M. P., Crosby, R. D., Crow, S. J., Knopke, A. J., Peterson, C. B., Wonderlich, S. A., & Mitchell, J. A. (2000). Utilization of empirically supported psychotherapy treatments for individuals with eating disorders: A survey of psychologists. *International Journal of Eating Disorders*, 27(2), 230–237. [https://doi.org/10.1002/\(SICI\)1098-108X\(200003\)27:2%3C230::AID-EAT11%3E3.0.CO;2-0](https://doi.org/10.1002/(SICI)1098-108X(200003)27:2%3C230::AID-EAT11%3E3.0.CO;2-0)

- National Institute of Mental Health Information Resource Center. (n.d.) Development of the RDoC framework. Retrieved from <https://www.nimh.nih.gov/research/research-funded-by-nimh/rdoc/development-of-the-rdoc-framework.shtml>
- Norcross, J. C., & Thomas, B. L. (1988). What's stopping us now? Obstacles to psychotherapy integration. *International Journal of Integrative and Eclectic Psychotherapy*, 7(1), 74–80.
- Pos, A. E., & Greenberg, L. S. (2012). Organizing awareness and increasing emotion regulation: Revising chair work in emotion-focused therapy for borderline personality disorder. *Journal of Personality Disorders*, 26(1), 84–107.
<https://doi.org/10.1521/pedi.2012.26.1.84>
- Rabinovich, M. (2016). Psychodynamic emotional regulation in view of Wolpe's desensitization model. *American Journal of Psychology*, 129(1), 65–79.
<https://doi.org/10.5406/amerjpsyc.129.1.0065>
- Renna, M. E., Quintero, J. M., Fresco, D. M., & Mennin, D. S. (2017). Emotion regulation therapy: A mechanism-targeted treatment for disorders of distress. *Frontiers in Psychology*, 8, 98. <https://doi.org/10.3389/fpsyg.2017.00098>
- Sheppes, G., Scheibe, S., Suri, G., Radu, P., Blechert, J., & Gross, J. J. (2014). Emotion regulation choice: A conceptual framework and supporting evidence. *Journal of Experimental Psychology: General*, 143(1), 163–181. <https://doi.org/10.1037/a0030831>
- Southward, M. W., Altenburger, E. A., Moss, S. A., Cregg, D. R., & Cheavens, J. S. (2018). Flexible, yet firm: A model of healthy emotion regulation. *Journal of Social and Clinical Psychology*, 37(4), 231–251. <https://doi.org/10.1521/jscp.2018.37.4.231>
- Southward, M. W., & Cheavens, J. S. (2017). Assessing the relation between flexibility in emotional expression and symptoms of anxiety and depression: The roles of context

- sensitivity and feedback sensitivity. *Journal of Social and Clinical Psychology*, 36(2), 142–157. <https://doi.org/10.1521/jscp.2017.36.2.142>
- Southward, M. W., Heiy, J. E., & Cheavens, J. S. (2019). Emotions as context: Do the naturalistic effects of emotion regulation strategies depend on the regulated emotion? *Journal of Social and Clinical Psychology*, 38(6), 451–474. <https://doi.org/10.1521/jscp.2019.38.6.451>
- Stewart, R. E., & Chambless, D. L. (2007). Does psychotherapy research inform treatment decisions in private practice? *Journal of Clinical Psychology*, 63(3), 267–281. <https://doi.org/10.1002/jclp.20347>
- Tasca, G. A., Sylvestre, J., Balfour, L., Chyurlia, L., Evans, J., Fortin-Langelier, B., Francis, K., Gandhi, J., Huehn, L., Hunsley, J., Joyce, A. S., Kinley, J., Koszycki, D., Leszcz, M., Lybanon-Daigle, V., Mercer, D., Ogrodniczuk, J. S., Presniak, M., Ravitz, P., ... Wilson, B. (2015). What clinicians want: Findings from a psychotherapy practice research network survey. *Psychotherapy*, 52(1), 1–11. <https://doi.org/10.1037/a0038252>
- Thoma, N. C., & Cecero, J. J. (2009). Is integrative use of techniques in psychotherapy the exception or the rule? Results of a national survey of doctoral-level practitioners. *Psychotherapy: Theory, Research, Practice, Training*, 46(4), 405–417. <https://doi.org/10.1037/a0017900>

Table 1*Means and Variability of Effectiveness Ratings for Each Emotion Regulation Strategy*

Strategy	<i>M</i>	<i>SE</i>	95% CI	Scenario	$\overline{Var}$	<i>partial</i> η^2
Problem-solving	67.13	.77	[65.62, 68.63]	$F(7.59, 2929.11) = 215.91, p < .01$	602.11	.36
Emotional support	51.85	1.04	[49.81, 53.89]	$F(8.88, 3402.70) = 61.38, p < .01$	351.89	.14
Reappraisal	51.73	.93	[49.90, 53.57]	$F(9.37, 3562.08) = 116.29, p < .01$	617.32	.23
Emotional expression	49.69	1.07	[47.59, 51.79]	$F(9.16, 3534.80) = 83.13, p < .01$	348.26	.18
Gather information	49.03	.82	[47.42, 50.65]	$F(8.92, 3397.74) = 173.79, p < .01$	676.79	.31
Acceptance	46.40	1.03	[44.37, 48.42]	$F(8.68, 3331.30) = 101.55, p < .01$	550.59	.21
Distraction	21.84	.68	[20.50, 23.17]	$F(7.90, 2979.47) = 98.15, p < .01$	371.10	.21
Improve relationship	20.59	.70	[19.22, 21.96]	$F(6.71, 2521.96) = 203.08, p < .01$	456.72	.35
Leave the situation	19.65	.61	[18.45, 20.84]	$F(6.38, 2367.59) = 174.81, p < .01$	537.95	.32
Conceal emotions	5.55	.37	[4.83, 6.27]	$F(7.61, 2823.09) = 9.93, p < .01$	62.14	.03

Note. Means, standard errors, 95% confidence intervals, and *F*-tests calculated from individual repeated measures ANOVAs in which scenario is entered as a within-subjects factor predicting strategy effectiveness. Greenhouse-Geisser corrections are reported because Mauchly's test of sphericity was significant for all models. Average within-person variability ($\overline{Var}$) created by (1) calculating the variance of strategy effectiveness ratings across situations for each participant and (2) averaging these within-person variances across participants. Mean effectiveness ratings can range from 0-100.

Table 2*Means and Variability of Emotion Regulation Strategies by Theoretical Orientation*

Strategy	Group	<i>M</i>	<i>SE</i>	95% CI	Group Effect	<i>partial</i> η^2
Problem-solving	CBT	68.44	.99	[66.49, 70.39]	$F(1, 385) = 4.28, p = .04$	.011
	Non-CBT	65.23	1.19	[62.88, 67.58]		
Emotional support	CBT	49.99	1.35	[47.33, 52.65]	$F(1, 382) = 4.57, p = .03$	.012
	Non-CBT	54.47	1.60	[51.32, 57.61]		
Reappraisal	CBT	52.85	1.22	[50.46, 55.24]	$F(1, 379) = 2.05, p = .15$	.005
	Non-CBT	50.14	1.45	[47.28, 52.99]		
Emotional expression	CBT	43.48	1.31	[40.91, 46.06]	$F(1, 385) = 54.39, p < .01$	.124
	Non-CBT	58.50	1.56	[55.43, 61.56]		
Gather information	CBT	45.74	1.05	[43.68, 47.79]	$F(1, 380) = 23.87, p < .01$	.059
	Non-CBT	53.65	1.24	[51.22, 56.09]		
Acceptance	CBT	48.49	1.33	[45.87, 51.12]	$F(1, 383) = 6.02, p = .02$	.015
	Non-CBT	43.38	1.60	[40.24, 46.53]		
Distraction	CBT	24.52	.86	[22.83, 26.22]	$F(1, 376) = 23.53, p < .01$	.059
	Non-CBT	18.01	1.03	[15.99, 20.03]		
Improve relationship	CBT	20.25	.91	[18.46, 22.04]	$F(1, 375) = .34, p = .56$	.001
	Non-CBT	21.07	1.08	[18.94, 23.20]		
Leave the situation	CBT	19.62	.79	[18.06, 21.17]	$F(1, 370) < .01, p = .95$	< .001
	Non-CBT	19.69	.95	[17.82, 21.56]		
Conceal emotions	CBT	5.74	.48	[4.79, 6.68]	$F(1, 370) = .37, p = .54$	.001
	Non-CBT	5.28	.57	[4.15, 6.41]		

Note. CBT = Cognitive-Behavior Therapy. Scenario statistics calculated by individual repeated measures ANOVAs in which the between-subjects effect of theoretical orientation predicts average strategy effectiveness. Mean effectiveness ratings can range from 0-100. * $p < .05$, ** $p < .01$.