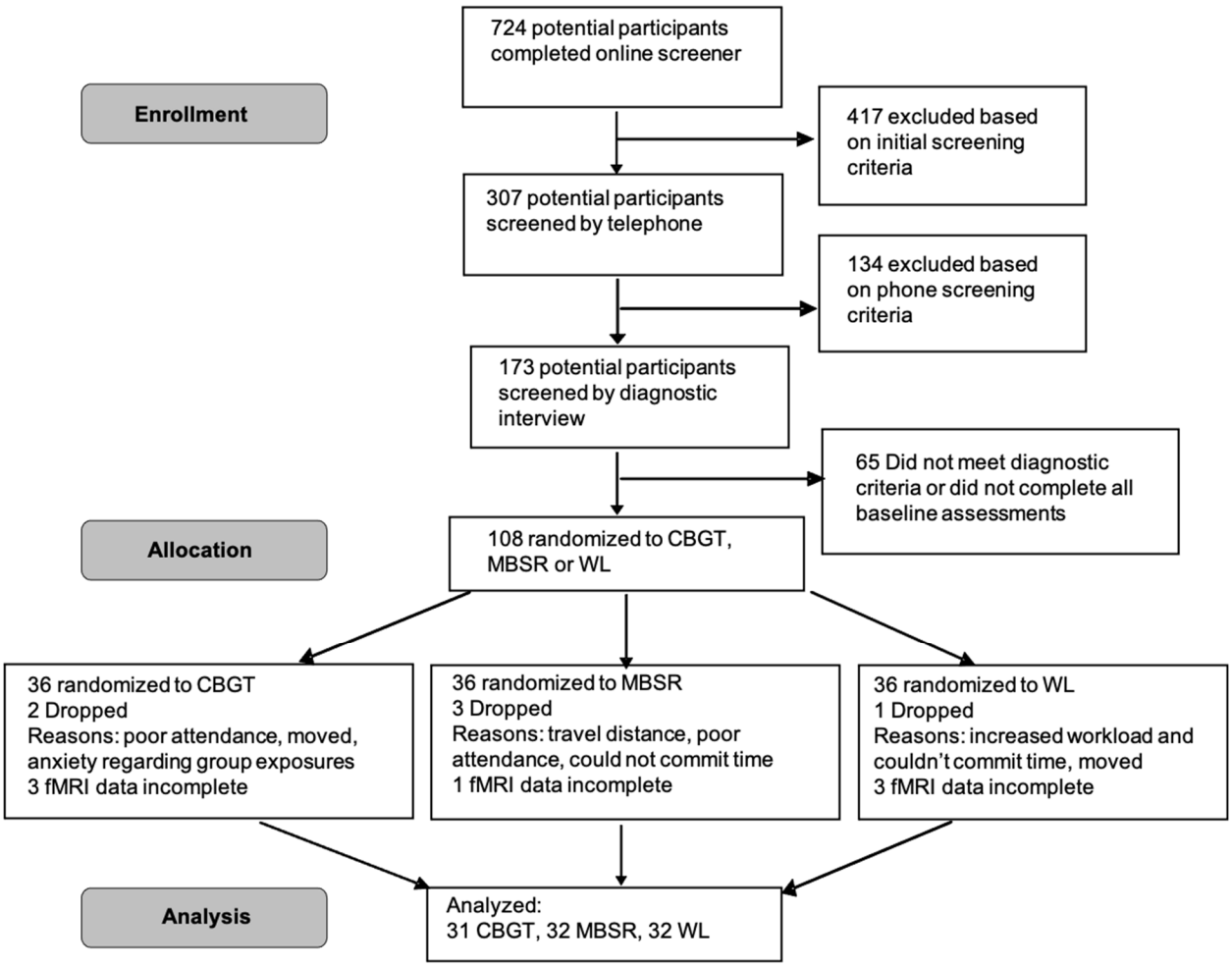
Supplemental Online Content

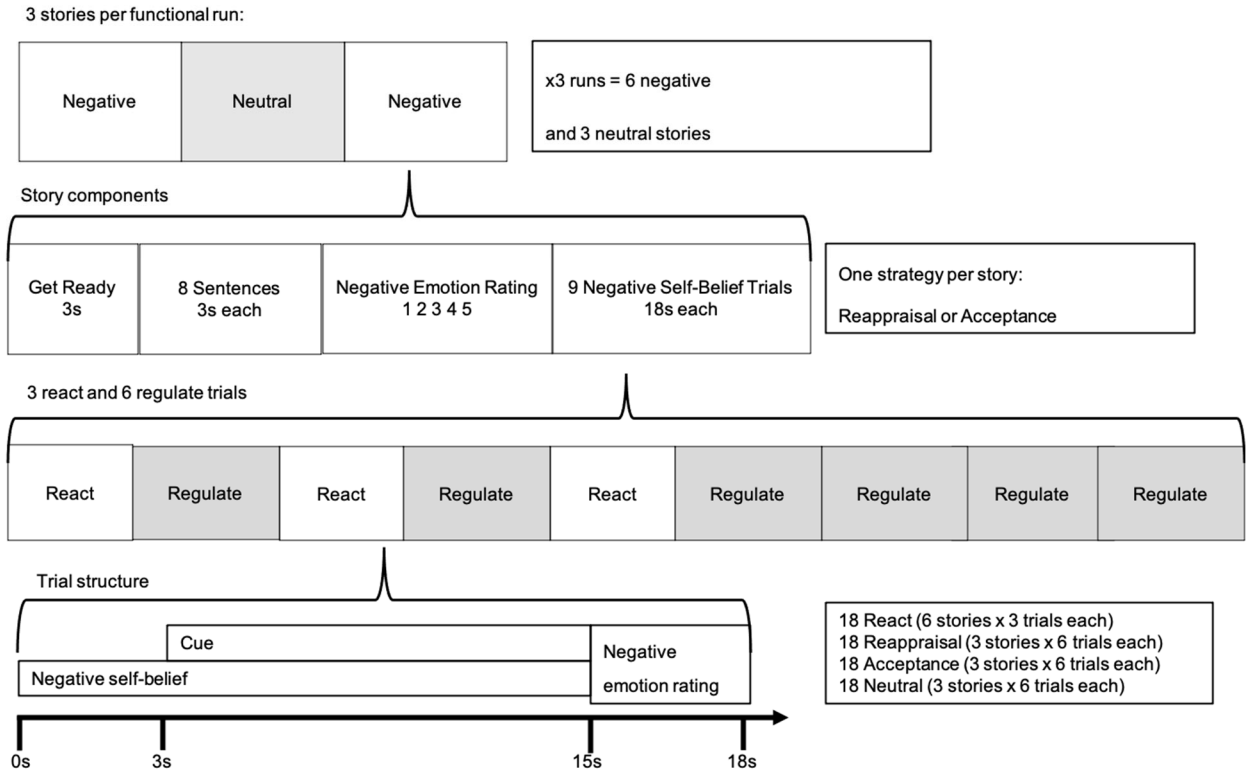
Goldin PR, Thurston M, Allende S, et al. Evaluation of cognitive behavioral therapy vs mindfulness meditation in brain changes during reappraisal and acceptance among patients with social anxiety disorder: a randomized clinical trial. *JAMA Psychiatry*. Published online July 21, 2021. doi:10.1001/jamapsychiatry.2021.1862

This supplemental material has been provided by the authors to give readers additional information about their work.



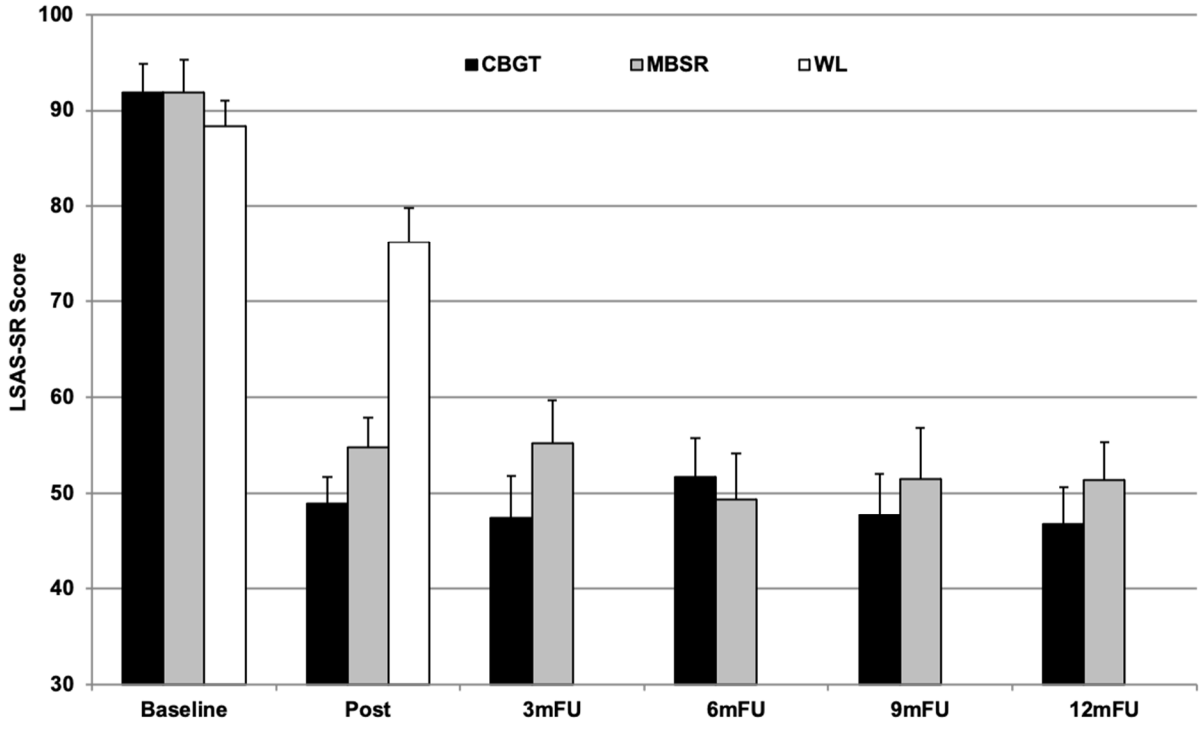
eFigure 1. Consolidated Standards of Reporting Trials (CONSORT) diagram for a randomized controlled trial of CBGT vs MBSR vs WL groups

[Adapted from Goldin et al., 2016 Journal of Consulting and Clinical Psychology; published with permission from American Psychological Association.]



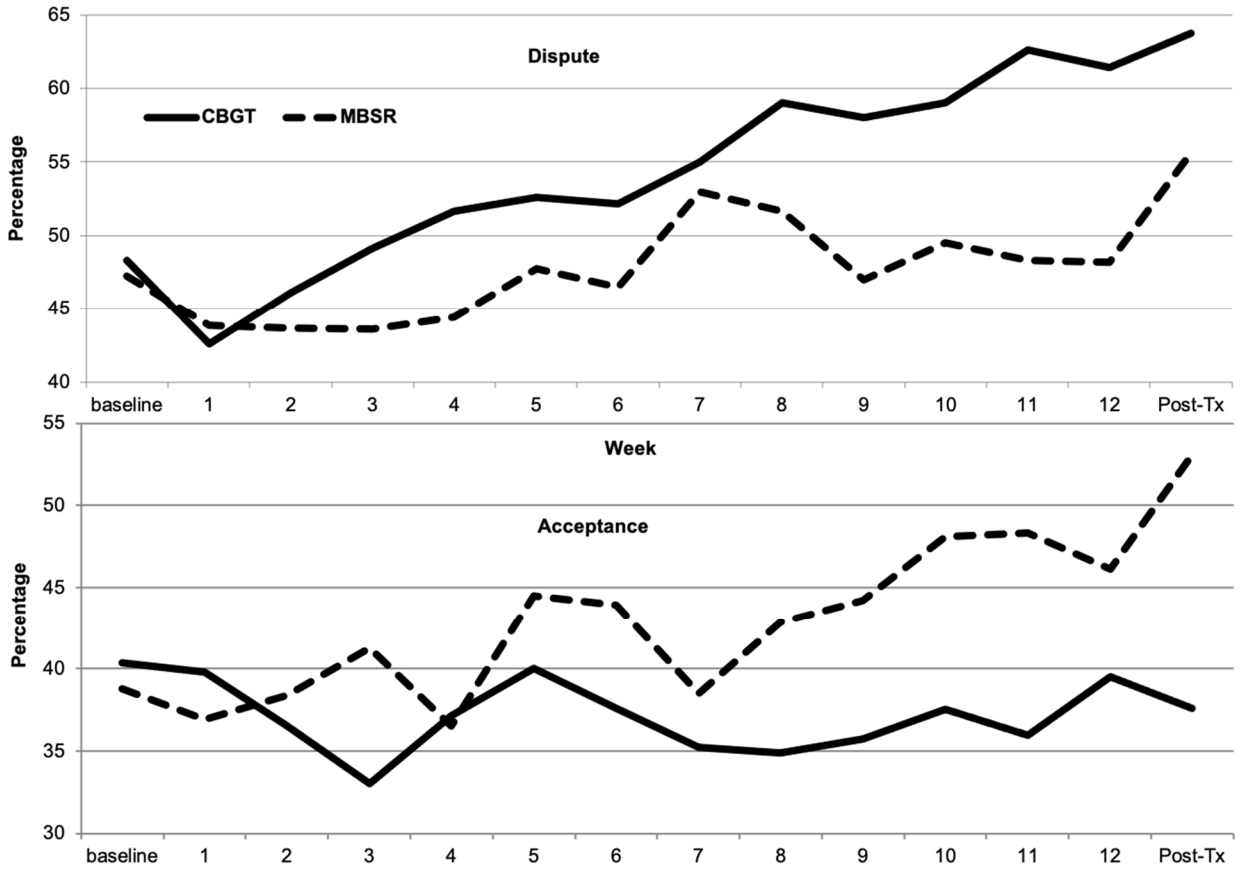
eFigure 2. Experimental task design

[Previously published in Goldin et al., 2019, Cognitive Affective Behavioral Neuroscience; published with permission from Cognitive Affective Behavioral Neuroscience]



eFigure 3. Social Anxiety Symptom Severity (LSAS) over the course of treatment and up to 1 year posttreatment

[Previously published in Goldin et al., 2016 Journal of Consulting and Clinical Psychology; published with permission from American Psychological Association.]



eFigure 4. Weekly frequency of use of cognitive reappraisal (ie, disputing negative self-beliefs) and of acceptance of anxiety in anxiety triggering situations pretreatment, during treatment and posttreatment

[Previously published in Goldin et al., 2017, Behaviour Research and Therapy; published with permission from Elsevier.]

We did not collect within CBGT session practice. However, as reported in Goldin et al., 2016 & Goldin et al., 2017, we measured **weekly frequency of use** of **cognitive reappraisal** (i.e., disputing negative self-beliefs) and of **acceptance** of anxiety during the prior week in anxiety triggering situations.

Cognitive Reappraisal

Linear mixed model analysis found a between group difference suggesting greater increase in **weekly frequency of disputing** ("Disputing or challenging your anxious thoughts and feelings") by the end of CBGT compared to MBSR, Time x Group: Estimate = .90, SE = .31, df = 101.39, t = 2.92, 95% CI [.29, 1.50].

We computed the baseline to post-treatment change score for **frequency of disputing** for each participant. Linear regression revealed that treatment-related change in disputing did **not** predict 1-year post-treatment severity of social anxiety symptoms (LSAS-SR) residuals that controlled for baseline levels of LSAS-SR for CBGT, B =.005, SE =.008, t=.686, p=.498, 95%CI [-.011, .021], and MBSR, B = -.004, SE =.008, t=.097, p=.597, 95%CI [-.019, .011].

Furthermore, the interaction of group by treatment-related change in weekly frequency of acceptance was **not**

significant, t=0.805, p=.424, 95%CI [-.006, .015].

Acceptance

Linear mixed model analysis found a between group difference suggesting greater increase in **weekly frequency of acceptance** ("Just accepting your anxiety and not changing it in any way") beliefs by the end of MBSR compared to CBGT, Time x Group: Estimate = -1.18, SE = .42, df = 104.77, t = -2.80, 95% CI [-2.01, -0.34].

We computed the baseline to post-treatment change score for frequency of acceptance for each participant. Linear regression revealed that treatment-related change in **weekly frequency of acceptance** did not predict 1-year post-treatment severity of social anxiety symptoms (LSAS-SR) residuals that controlled for baseline levels of LSAS-SR for CBGT, B =-.001, SE =.005, t=-0.137, p=.892, 95%CI [-.012, .010], but did predict for MBSR, B =-.010, SE =.005, t=-2.043, p=.050, 95%CI [-.02, .000]; correlation coefficient (standardized coefficient beta) = -.35. However, the interaction of group by treatment-related change in weekly frequency of acceptance was not significant, t=1.269, p=.210, 95%CI [-.005, .024].

Goldin, PR, Morrison, AS, Jazaeiri, H, Brozovich, FA, Heimberg, RG, & Gross, JJ (2016). Group CBT versus MBSR for social anxiety disorder: A randomized controlled trial. *Journal of Consulting and Clinical Psychology*, 84, 427-37. doi: 10.1037/ccp0000092. PMID: 26950097

Goldin PR, Morrison A, Jazaieri H, Heimberg R, & Gross JJ. (2017). Trajectories of social anxiety, cognitive reappraisal and mindfulness during an RCT of CBGT versus MBSR for social anxiety disorder. *Behaviour Research and Therapy,* 97:1-13. doi: 10.1016/j.brat.2017.06.001. PMID: 28654771

eTable 1. Demographic and clinical characteristic of randomized participants (N = 108)

Characteristic	**CBGT (*n* = 36)**	**MBSR (*n* = 36)**	**WL (*n* = 36)**
Males, No. (%)	16 (44.4)	16 (44.4)	16 (44.4)
Age, mean (*SD*), years	34.1 (8.0)	29.9 (7.6)	34.1 (7.8)
Education, mean (*SD*), years	17.4 (3.3)	16.2 (1.7)	16.5 (2.9)
Ethnicity, No. (%)			
Caucasian	18 (50.0)	14 (38.9)	15 (41.7)
Asian	15 (41.7)	13 (36.1)	14 (38.9)
Latino	2 (5.5)	7 (19.4)	1 (2.8)
African American	0	1 (2.8)	0
American Indian / Alaskan Native	0	0	1 (2.8)
More than One Race	1 (2.8)	1 (2.8)	5 (13.9)
Yearly income, No. (%)			
<10k	3 (8.3)	3 (8.3)	1 (2.8)
10-25k	3 (8.3)	2 (5.6)	4 (11.1)
25-50k	5 (13.9)	5 (13.9)	5 (13.9)
50-75k	6 (16.7)	5 (13.9)	3 (8.3)
75-100k	4 (11.1)	3 (8.3)	4 (11.1)
>100k	9 (25.0)	9 (25.0)	10 (27.8)
Not reported	6 (16.7)	9 (25.0)	9 (25.0)
Marital status, No. (%)			
Single, never married	20 (55.6)	23 (63.9)	18 (50.0)
Married	12 (33.3)	8 (23.8)	16 (44.4)
Divorced, separated, widowed	1 (2.8)	0	0
Living with partner	3 (8.3)	5 (13.9)	1 (2.8)
Not reported	0	0	1 (2.8)
Current Axis I Comorbidity, No. (%)			
Generalized anxiety disorder	13 (36.1)	10 (27.8)	8 (22.2)
Specific phobia	4 (11.1)	10 (27.8)	5 (13.9)
Panic disorder	8 (22.2)	4 (11.1)	2 (5.6)
Major depressive disorder	1 (2.8)	2 (5.6)	1 (2.8)
Dysthymic disorder	2 (5.6)	2 (5.6)	3 (8.3)
Obsessive compulsive disorder	0	1 (2.8)	0
Past Axis I Comorbidity, No. (%)			
Generalized anxiety disorder	1 (2.8)	0	1 (2.8)
Panic disorder	3 (8.3)	3 (8.3)	1 (2.8)
Major depressive disorder	13 (36.1)	17 (47.2)	12 (33.3)
Dysthymic disorder	1 (2.8)	1 (2.8)	2 (5.6)
Obsessive compulsive disorder	1 (2.8)	1 (2.8)	1 (2.8)
Post-traumatic stress disorder	0	0	0
Substance abuse disorder	3 (8.3)	3 (8.3)	2 (5.6)
Eating disorder	2 (5.6)	1 (2.8)	2 (5.6)
Past non-CBGT Psychotherapy, No. (%)	20 (55.6)	18 (50.0)	23 (63.9)
Past Pharmacotherapy, No. (%)	15 (41.7)	15 (41.7)	13 (36.1)
Age at symptom onset, mean (*SD*), years	9.0 ± 5.1	9.4 ± 5.1	8.3 ± 5.0
Years since symptom onset, mean (*SD*), years	25.1 ± 1.3	20.5 ± 9.1	25.8 ± 8.3

Note: All comparisons (between-group *t*-test or χ^2 tests) are non-significant, $p > .05$. CBGT = cognitive behavioral group therapy, MBSR = mindfulness-based stress reduction, WL = waitlist group, *SD* = standard deviation, No. = number, k = thousand dollars. Previously published in Goldin et al., 2016, Journal of Consulting and Clinical Psychology; published with permission from American Psychological Association.

eTable 2. Interaction of group (CBGT+MBSR vs WL) by time (pretreatment vs posttreatment) on BOLD signal responses during react, reappraise, and accept conditions

Brain Region		Vol (mm^3)		Peak Z-value
React vs. Neutral				
Within search mask				
Dorsomedial PFC		796		7.96
Whole brain				
Left Dorsomedial PFC		219		3.75
Right Dorsomedial PFC		121		3.13
Left Hippocampus		1041		5.54
Right Hippocampus		110		5.36
Caudate Nucleus		558		4.62
Accept vs. Neutral				
Within search mask				
Dorsomedial ACC		1726		5.52
Left Dosolateral PFC		371		4.34
Thalamus		66		4.54
Whole brain				
Caudate, thalamus		22,806		6.25
Left dorsolateral PFC		1,110		4.34
Left Supramarginal / Angular		520		3.77
Left cerebellum		418		4.16
Right cuneus		164		4.29
Right rostromedial PFC		164		3.23
RIght Insular cortex		65		2.91
Right Orbitofrontal cortex		48		3.11
Reappraise vs. Neutral				
Within search mask				
Dorsomedial PFC		1,819		6.60
Left dorsolateral PFC		791		5.47
Left ventrolateral PFC		574		5.41
Left Supramarginal / Angular		242		4.83
Thalamus		172		5.25
Whole brain				
Dorsomedial PFC		35,978		6.60
Left Supramarginal / Angular		1,137		4.92
Rostromedial ACC		287		4.00

Note. ACC = anterior cingulate cortex, BOLD = blood oxygen level dependent signal, PFC = prefrontal cortex, Vol = volume of BOLD signal cluster.

eMethods
Participants

All patients had to meet *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM–IV–TR*; American Psychiatric Association, 2000) criteria for a principal diagnosis of generalized SAD based on the Anxiety Disorders Interview Schedule for the DSM–IV: Lifetime version (ADIS-IV-L; Di Nardo, Brown, & Barlow, 1994). Additionally, all patients had to meet the criteria for the "generalized" subtype of SAD as defined by greater than moderate social fear in five or more distinct social situations assessed by the ADIS-IV-L. Furthermore, all patients were required to score greater than 60 on the Liebowitz Social Anxiety Scale—Self-Report (LSAS-SR), the cutoff score for the generalized subtype of SAD as determined by receiver operator characteristics analysis of the LSAS-SR (Rytwinski et al., 2009). Patients were excluded if they reported engaging in pharmacotherapy or psychotherapy during the past year; had engaged in CBT for any anxiety disorder during the last 2 years; had participated in an MBSR course at any time in the past; had engaged in long-term meditation re-treats; had a history of regular meditation practice of 10 min or more for three or more times per week; any history of neurological disorders, cardiovascular disorders, thought disorders, or bipolar disorder; as well as current substance and alcohol abuse or dependence.

The participants were recruited from 2012 to 2014. Exactly 724 potential participants completed an online screener. Approximately 307 were subsequently screened by telephone (see Consolidated Standards of Reporting Trials, eFigure 1). There were 173 who passed the phone screen and were potentially eligible were administered the ADIS-IV-L in person to determine whether they met diagnostic inclusion/exclusion criteria. 65 patients were excluded because they did not meet diagnostic criteria or failed to complete baseline assessments. The remaining 108 patients were randomly assigned to CBGT (n = 36), MBSR (n = 36), or WL (n = 36). Dropout from treatment was low and did not differ, $\mathcal{X}^2(2, N = 108) = 1.05$, $p = .59$, across CBGT (n = 2; 6%), MBSR (n = 3; 8%), and WL (n = 1; 3%).

Procedure
Potential patients were recruited through clinician referrals and community listings on bulletin boards and email lists. Only after passing the telephone screening was a face-to-face diagnostic interview scheduled and used to determine current and past Axis I psychiatric disorders and current clinician-rated severity. Patients had to complete all baseline assessments before being randomly assigned to a treatment group. We used a block assignment procedure such that each set of six consecutive patients entered one group (CBGT, MBSR, or WL). Thus, there were 6 groups of 6 patients each in each of the 3 arms for a total of 108 patients enrolled. When the patients in the WL group completed the post-WL assessments, they were re-assigned randomly to CBGT or MBSR. Patients completed assessments again at posttreatment and every 3 months during the 1-year follow-up. Patients received treatment at no cost and $150 for completing the 1-year follow-up behavioral session. All participants provided informed consent in accordance with the institutional review board.

Diagnostic Assessment
We conducted diagnostic interviews at baseline using the ADIS-IV-L (Di Nardo et al., 1994). The ADIS-IV-L has demonstrated excellent interrater reliability (Brown, Di Nardo, Lehman, & Campbell, 2001) and provides clinician-rated severity for each assigned diagnosis on a 0 to 8 scale. To assess the interrater reliability of the ADIS-IV-L, we had doctoral clinical psychologists and doctoral students review 20% of the interviews. There was 100% agreement with the original principal diagnosis of SAD (k = 1.0).

Autobiographical Social Situation Emotion Regulation fMRI Task
For each of the six personally-salient emotionally-evocative autobiographical social situations, participants (a) wrote a single paragraph of up to 16 sentences to describe what happened, and (b) identified several situation-related negative self-beliefs that they held about themselves. Experimenters edited and entered the participant's content into an Eprime script that presented each autobiographical situation as a series of 8 one-line sentences. The purpose of having participants read their own social situations was to help participants recall the specific social context and prime more potent emotional reactivity to their own self-relevant negative self-beliefs. After reading the story sentences, nine negative self-beliefs were presented.

Before scanning, participants were briefly trained on the four conditions (neutral, react, reappraise, acceptance). Using experimenter chosen stimuli, participants practiced reading neutral statements, reacting to negative self-

beliefs by considering how it reflected something true about themselves, reappraisal of negative beliefs by using reappraisal to "actively reframe the belief by thinking in a way that re-interprets the content of the belief and thereby make the belief less negative and toxic for you," and acceptance of negative self-beliefs by "simply observing and accepting without judgment from moment-to-moment (and not attempting to modify or change) any responses, including thoughts, emotions, memories, images, and physical sensations." Participants read written descriptions of react, reappraisal and acceptance, verbalized their understanding to an experimenter, practiced implementing reappraisal and acceptance while verbalizing in real-time what they were thinking and doing, and received feedback from the experimenter on their application of reappraisal and acceptance until there was clear demonstration of understanding of how to implement reappraisal and acceptance effectively. For reappraisal, participants might encounter a negative self-belief such as "NO ONE LIKES ME," and then be cued to reframe this belief by telling yourself "That is not always true," "Some people like me," or "This is only a thought, not a fact." Acceptance might include observing with curiosity the changing nature of thoughts, associations, memories, mental images, and physical sensations when interacting with each negative self-belief.

During scanning, the experimental task consisted of three functional runs, each lasting 8 minutes and 33 seconds. Each run consisted of 1 neutral story and 2 negative social situation stories. Participants were cued to use reappraisal ("REFRAME") during one negative social situation story, and cued to use acceptance ("OBSERVE") on the other negative social situation story). Each neutral story consisted of 6 sentences presented for 3s each (total = 18s) followed immediately by 6 neutral statements in all capital BOLD font presented for 12s each. Each negative social situation consisted of participant-specific, personally-salient autobiographical social situations as an unfolding story consisting of 8 sentences presented for 3s each (total =24s). The story was immediately followed by 9 trials of the participant's own situation-related negative self-beliefs. Each set of 9 negative self-beliefs was independent and related to a specific autobiographical social situation. Trials 1, 3 and 5 were fixed as "REACT" cue trials, and the remaining 6 trials were fixed with one strategy only per social situation story: either reappraisal cued with "REFRAME" or acceptance cued with "OBSERVE."

After each trial, participants rated using a button-response pad in their right hand "How negative do you feel right now?" (1=not at all to 5=very much). Each 18s long trial consisted of negative self-belief (0-3s), react, reframe or observe cue above negative self-belief (3-15s), and emotion ratings (15-18s). We examined only the 12s of each trial during which the negative self-belief and the cue ("read", "react", "reframe", or "observe") were on the screen. Additionally, after each functional run, participants rated while inside the scanner perceived success when implementing the reappraisal and mindful attention strategies. They used the button-response pad and the scale of 1=not at all to 5=very much to make responses.

Image Acquisition

We used a GE 3-T Signa magnet with a T2*-weighted gradient echo spiral-in/out pulse sequence [45] to acquire 1026 functional volumes across three functional runs from 22 axial slices (interleaved bottom/up, frequency encoding A/P, repetition time=1500 milliseconds, echo time=28.5 milliseconds, flip angle=65°, field of view=22 cm, matrix=64x64, resolution=3.438 mm^2 (in-plane) x 4.5 mm (through-plane). Head movement was minimized using a bite-bar and foam padding. High-resolution anatomical scans were acquired using fast spin-echo spoiled GRASS ($.8594^2$ x 1.5 mm; field of view=22 cm, frequency encoding=256).

A Priori Brain Search Region Mask

Here is information directly copied from the OSF regarding the construction of the a prior brain search region mask that was uploaded prior to conducting our data analysis:

An *a priori* search region mask was created from a combination of brain regions identified by the Neurosythn forward inference meta-analysis for "Attention Control" and "Reappraisal", as well as brain regions identified in the meta-analysis of cognitive reappraisal to down-regulate negative emotions (Buhle et al., 2014), and a meta-analysis of open monitoring meditation (Fox et al., 2016). This single mask file will be used as a composite search volume for analyses of both cognitive reappraisal and attention regulation (i.e., decentering-acceptance) strategies. For each contrast, we will use threshold free cluster enhancement (FSL) to correct for multiple comparisons and to identify significant clusters of brain activation at baseline and post-treatment/waitlist. This method is preferable to applying arbitrary or pre-defined cluster or voxel activation thresholds.

The mask creation steps are as follows:

[1] The forward inference maps for "reappraisal" and "attentional control" were downloaded from Neurosynth in the MNI T1-152 2mm composite brain space.

[2] Separately, the MNI coordinates reported as the peaks related to cognitive reappraisal and open monitoring meditation from the Buhle and Fox meta-analyses, respectively, were recorded.

[3] These coordinates were then manually checked to ensure that they were in grey matter regions, and then translated from MNI peaks into FSL voxel coordinates.

[3] Spheres were then drawn around these peaks, with an 8mm radius for all spheres.

[4] A composite map, and then masks, were then created that included spheres from both meta-analyses.

[5] The meta-analysis map was then combined with the two Neurosynth maps.

[6] A gray matter mask for the FSL MNI brain was created using a converted nifti file version of the 152 T1 grey average image.

[7] This grey matter mask was then used to remove voxels outside the brain and in the CSF and white matter of the combination mask.

[8] The resulting map was then binarized and is available for download here.

fMRI Data Processing and Analysis

Analysis of Functional NeuroImages (AFNI) software [46] was used to remove the first 4 time points, remove outliers, register, motion correct, spatially smooth (4 mm^3 isotropic kernel), high-pass filter (.011 Hz), linear detrend, and convert into percent signal change each functional run. No scanning session (which include 3 separate functional runs) volumes demonstrated a *mean* amount of motion in the x, y, or z directions in excess of ± 0.7 mm. When using head movement >1mm and 10% of 1014 volumes (i.e., TRs) in the experimental task as thresholds, only 7 individual scanning sessions met the threshold for removal due to excess head movement. We then examined each of the 3 functional runs that make up the experimental task. When a single functional run had greater than 10% of volumes with movement >1mm, we removed that single functional run. If less, then we removed only those specific volumes using a censor file in the regression model. There was no evidence of stimulus-correlated motion (all *p*s > .38).

We used 3dDeconvolve to conduct a multiple-regression that included removal of mean, linear, and quadratic trends, and motion-related variance in the BOLD signal. Regressors for neutral, react negative self-beliefs, reappraisal and acceptance trials were convolved with the gamma variate model [47] of the hemodynamic response function. Individual brain maps were resampled to 3.438 mm cubic voxel, converted into Talairach atlas space [48], and second-level group statistical parametric maps were produced according to a random-effects model.

Finally we used the FSL Randomize tool to implement Threshold-Free Cluster Enhancement (TFCE), which is a newer method for finding cluster-like structures that takes into account the spatial extent and height of BOLD signal and addresses problem with earlier versions of 3dClust [32]. We confirmed the validity of the findings by re-analyzing the fMRI data using FSL to implement preprocessing, statistical analysis, and TFCE. The results were similar.

Analysis of Negative Emotion Ratings

We used the RStudio IDE for the R statistical computing language (RStudio Team, 2020) to implement a linear mixed model analysis of the negative emotion ratings collected after each trial during the fMRI autobiographical social situation emotion regulation task. The tidyverse and nlme packages were used to structure the data and estimate the linear mixed models, respectively (Pinheiro, Bates, DebRoy, Sarkar & Team RC, 2013; Wickham, 2017). Under the missing at random (MAR) assumption, we used an intention-to-treat linear mixed modeling approach (Raudenbush & Bryk, 2002; Snijders & Bosker, 1999) to examine negative emotion per condition (react, reappraise and accept) by group (CBGT vs MBSR vs waitlist) for hypotheses 1 and 2. Given that cohorts of 6 patients were used to deliver the interventions in both treatment arms, we used a likelihood ratio test to examine whether a 3-level random effects structure was warranted: observations (negative emotion ratings per condition)

nested within participants, nested within cohorts of 6 patients per CBGT or MBSR group (Raudenbush & Bryk, 2002; Snijders & Bosker, 1999). The likelihood ratio test determined that the best fitting model for each of the outcome variables was a 2-level random intercept model that did not include a level for participants nested within cohorts of 6 patients per CBGT or MBSR group.

Six separate linear mixed models were estimated to examine the effect of group (CBGT vs MBSR vs WL) on self-reported negative emotions or BOLD signal responses for the three conditions (react, reappraisal and acceptance). To test hypothesis 1 (treatment vs waitlist), we used the following contrast weights for treatment condition: -2 (WL), +1 (CBGT) and +1 (MBSR). To test hypothesis 2 (CBGT vs MBSR), we used the following contrast weights for treatment condition: 0 (WL), -1 (CBGT) and +1 (MBSR). The full models were estimated with restricted maximum likelihood estimation and included fixed effects for time, treatment condition and their interaction. Standardized coefficients were computed by taking the product of the model estimate and the predictor's standard deviation and dividing by the outcome variable's standard deviation (Snijders & Bosker, 1999). Assumption plots at levels 1 and 2 demonstrated reasonable normality, independence and constant variance.

Autobiographical Social Situation Task Instructions

Note: Based on piloting, we made one adjustment during the training of emotion regulation strategies prior to MR scanning for the current RCT of CBGT vs MBSR. We added the use of a visceral tool – a pinecone – during training of the instructions to give participants a prickling sensory experience to which the participants applied reacting, reappraising and accepting instructions. We thought that adding the direct irritating sensory experience during training could mimic that discomfort caused by spinning on negative self-beliefs.

General Instructions:
You will be doing a task where you will be asked to read sentences that make up your own personal, autobiographical stories. You will be asked to both just react to these sentences how you naturally would, and you will also be asked to regulate your reaction. This study has very important implications for mental health and well-being. But it really requires your attention. Please stay focused, pay attention and really engage with listening to the sentences.

READ
When you are given this prompt to READ, please read each statement that is presented on the screen.

Now let's practice with some statements: "The ball is on the box."

Please explain back to me how you understand the READ instruction.

How confident do you feel you can do this READ instruction to the sentences while you are in the scanner from 1-10?

REACT
When you are given the prompt to REACT, as you read each statement, focus on how the statement is true for you. Allow yourself to REACT with the thoughts that you would actually have. So this pine cone represents one of the critical sentences. Allow your body and mind to react as they naturally would to the statements.

Now let's practice following the REACT instruction with some statements. "Others think you are awkward." Now focus on when this is true for you – when people are uncomfortable being around you. Let one thought follow to the next. Stay immersed in your experience of knowing you are awkward. Stay in the first person and really think this is happening to you. Now let's practice with another couple of sentences: "Others think you are uptight." Just let yourself REACT as you normally would. Now what was your experience of that?

Please explain back to me how you understand the REACT instruction.

How confident do you feel you can do this REACT instruction to the sentences while you are in the scanner from 1-10?

REAPPRAISAL
For this part of the task, when you are given the prompt to REFRAME, we would like you to reinterpret the statement so it is less negative and toxic for you. We would like you to work with your thoughts so they change your sensations and feelings.

In contrast to our prickly reactivity, REFRAME is knowing that our thoughts, sensations, and experiences can be molded and shaped. It does not have to be rigid.

You will think of a short positive coping statement that directly REFRAMEs the thought to something more realistic. Often what will work is to think of specific evidence against the thought. So this is not to just "think positive" or tell yourself "It doesn't matter" as these are unrealistic and dismissive. But rather what is helpful is to come up with some evidence against your thought or think of another point of view -- ones that you can buy into and believe. You really work with the thought and say it is not true.

So if you read the sentence, "No one likes you", some REFRAMES to these sentence are:

“That is not true, some people like me” or “My sibling likes me.”

Now practice with these sentences:
“You are not very smart.” or “People don’t enjoy being around you.”

Some REFRAMEs you can use with this are: "That is not always true"; "Some people like me"; "This is only a thought, not a fact."

Please explain back to me your understanding of the REFRAME instruction.

How confident do you feel you can do this REFRAME instruction to the sentences while you are in the scanner from 1-10?

ACCEPTANCE
When you are given the prompt, OBSERVE, as you read each statement with this OBSERVE instruction, we’d like you to use the part of your mind that can notice your thoughts and sensations. As you read each statement, simply observe the sensations and thoughts that play out in your mind in reaction to this statement. Notice whether your thoughts arise as images, words or both. Notice how different thoughts arise and fall and change over time naturally. Just notice, and watch what happens with a sense of curiosity about your experience as it unfolds. Just observe your thoughts, from moment to moment, without getting sucked into them.

So let’s practice now. Here are some sentences, and I’d like you to observe what thoughts you have in reaction to what I say.

Here is the first one:
“Others sometimes look down on you. You can be pitied by others.”

Wait 10 seconds. What are some thoughts you had in reaction to those statements? Were you able to notice your thoughts?

Now let’s practice again?
People seem to like you. You are a likeable person.
Others look down on you. You are embarrassing.
Do you have enough friends? You really don’t have many friends.
People are embarrassed to be seen with you. You are not liked.

Please explain back to me your understanding of the OBSERVE instruction.

How confident do you feel you can do this OBSERVE instruction to the sentences while you are in the scanner from 1-10?

Remember, with OBSERVE, you are curious, open, noticing, and fully experiencing *without* judgments, reactivity, or elaborating.