

**Trial Protocol for  
“Optimizing Exposure Therapy for Anxiety Disorders”**

Last updated March 22nd, 2024

## Trial Registration

The trial was officially registered on clinicaltrials.gov on November 26th, 2018. The registry name is “Optimizing Exposure Therapy for Anxiety Disorders (OptEx)” (Clinical Trials ID#: NCT04048824). This study is funded by UCLA’s Anxiety and Depression Research Center (i.e., Kevin Love Centennial Chair for Mental Health, foundation account # 638240). Dr. Michelle G. Craske is the contact principal investigator (PI). Correspondence concerning this protocol should be addressed to Michelle G. Craske, Department of Psychology, University of California, Los Angeles, 405 Hilgard Avenue, Los Angeles, CA 90077 (email: [mcraske@mednet.ucla.edu](mailto:mcraske@mednet.ucla.edu)).

**Public Title:** Optimizing Exposure Therapy for Anxiety Disorders (OptEx)

**Scientific Title:** Inhibitory Learning vs. Habituation: Models of Exposure Therapy

## Roles and Responsibilities

Dr. Michelle Craske will chair the Executive Committee for this project, serving as the Principal Investigator. The committee will also include Drs. Michael Treanor and Dr. Tomislav Zbozinek as co-Investigators. Each committee member is affiliated with the University of California, Los Angeles. The team will hold weekly teleconference calls. Monthly calls will include key investigators as needed. In these monthly meetings, we will address issues of data collection, budget, recruitment, treatment delivery, data management and analysis, and training and ongoing review to maintain interrater reliability. Also, we will discuss human subjects’ issues, especially the recruitment of BIPOC participants.

The Executive Committee will review all publications and presentations derived from data garnered in this grant in order to ensure its quality. Assignment of publications and other academic products of this project will be decided on by the Executive Committee. Disagreements will be resolved by majority decision. At the end of the trial, all publications and presentations derived from the data will be vetted within the Executive Committee prior to release.

## Specific Aims

Aim 1. Compare the differential effectiveness of the inhibitory retrieval model of exposure that emphasizes learning theory principles and a habituation-based model. Principal outcomes will include self-report and clinician rated symptoms. We hypothesize that the inhibitory retrieval model of exposure therapy will be more effective than the habituation-based model.

Aim 2. Examine the mechanisms of change in both the habituation and inhibitory-based treatment. We hypothesize that changes in associative learning in the inhibitory retrieval group (as indexed by self-report US expectancy and learning rate) will drive change in subsequent symptomatology and not the reverse. Additional examination of mechanisms will be exploratory.

Aim 3. Examine moderators and predictors of treatment in both the inhibitory and habituation-based models.

## Methods

### Trial Design

This will be an assessor-blinded, parallel, 2-arm, randomized (1:1) clinical superiority trial, for treatment-seeking adults with moderate to severe social anxiety or panic disorder.

### Participants

Participants will be recruited in the United States. A brief study description will be distributed via lab websites, social media, clinicaltrials.gov, and brochures to local agencies.

Inclusion criteria will consist of (1) Seeking treatment for social anxiety or panic disorder and demonstration of elevated scores (greater than two standard deviations of the normed mean) on standardized scales for anxiety (i.e., Mini SPIN or PDSS), (2) Age 18 to 65, (3) Either stabilized on psychotropic medications (1 month for benzodiazepines and beta blockers, 3 months for heterocyclics and SSRIs; self-reported) or medication-free (self-reported), (4) English-speaking, and (5) Clinical severity rating of 4 or higher on the Structured Clinical Interview for DSM-5 (SCID-5) for either panic disorder or social anxiety.

Exclusion criteria will consist of (1) Patient report of serious medical conditions – such as respiratory (e.g., chronic obstructive pulmonary disease), cardiovascular, pulmonary, neurological, muscular-skeletal diseases – or pregnancy, (2) History of suicidal ideation or self-harm in the past year; history of suicide attempts in the last 10 years, (3) History of bipolar disorder, psychosis, mental retardation or organic brain damage, (4) Substance abuse dependence within last 6 months, (5) Concurrent therapy focused on anxiety



Participants will be allowed to be in other forms of therapy, provided the therapy does not focus on anxiety (e.g., supportive counseling) and they have been stabilized on this alternative therapy for at least 6 months.

Interventions. Both interventions will entail 9 weekly exposure treatment sessions which are 60 minutes each, with the exception of first session which will be 90 minutes. Treatment sessions and laboratory assessments will be conducted at the UCLA Psychology Clinic and at UCLA's Anxiety and Depression Research Center laboratory.

Inhibitory Retrieval Condition (Experimental Comparator)

Participants will receive exposure therapy focused on maximizing extinction learning and expectancy violation. Participants will complete an OptEx Nexus to identify conditional stimuli (CS), unconditional stimuli (US), safety signals, and occasion setters. Exposures will be designed to “test out” if the US will occur. Consistent with associative learning principals, participants will conduct repeated exposure to the principal conditional stimulus (along with additional exposure to other CSs).

This condition includes techniques that incorporate associative learning principles such as deepened extinction, increasing attentional salience of the CS, variability in contexts and stimuli, occasional reinforcement, and mental reinstatement of extinction learning. Our manual is available to clinical researchers upon request.

Habituation Treatment (Active Comparator)

Participants will receive exposure therapy aimed at maximizing habituation and reducing fear responding. This condition includes techniques derived from the extant literature on habituation and dominant habituation models of exposure therapy. These include, but are not limited to, maintaining the exposure until fear declines, maintaining similarity across exposures, repetition of exposures until between session fear has declined, and a gradual approach to feared stimuli using an exposure hierarchy.

A list of feared situations will be generated and ranked in ascending order on the level of expected distress in that given situation (fear hierarchy). Treatment will begin with exposure to a moderately distressing stimulus (e.g., subjective units of distress or SUDS of 50-60) and continue through the individual's fear hierarchy towards the highest rated distressing situation. A given exposure will be focused on the given item on the fear hierarchy until initial SUDS has decreased by 50% or 45 minutes has passed. For example, if an individual reports that having a conversation with a stranger would elicit a distress rating of 80 out of 100, the individual would continue their exposure to this situation until they reach a distress rating of 40 or 45 minutes had passed. The same in-session exposure will be repeated between-session (consistent with models of habituation). Individuals will move up their fear hierarchy once between-session habituation (50% reduction in SUDS from the first exposure to this stimulus) has been achieved. Our manual is available to clinical researchers upon request.

Therapist Training, Supervision, and Fidelity

Therapists will consist of highly-trained graduate students. All graduate student therapists on the study will have been trained extensively by Dr. Michelle Craske and Dr. Michael Treanor, both of whom have extensive experience in exposure therapy for anxiety disorders. All study therapists will attend an eight-hour workshop on exposure therapy from both an inhibitory retrieval and habituation perspective led by Drs. Craske and Treanor, as well as weekly supervision from Drs. Craske and Treanor. All sessions will be audio- and videotaped for the purpose of supervision and fidelity ratings (i.e., checking of the degree to which therapists followed the prescribed treatment procedure).

## Outcome Measures

Principal and secondary outcome measures are depicted in Table 1.

**Table 1.** Self-report, behavioral, cognitive, and physiological measures at pre-treatment (week 0), weekly (sessions 1-9), mid-treatment (between week 4 and week 5), post-treatment (week 10) and at the 3-month follow up (week 24).

Week	Pre 0	Weekly (sessions 1-9)	Mid 4-5	Post 10	Follow-Up 24
<b>Principal Outcome Measures</b>					
S: Liebowitz Social Anxiety Scale- Self Report (LSAS-SR)	X		X	X	X
S: Panic Disorder Severity Scale-Self Report (PDSS-SR)	X	X	X	X	X
S: Clinician Severity Ratings (SCID-5)	X			X	X
<b>Secondary Outcome Measures</b>					
Mini-Social Phobia Inventory (Mini-SPIN)	X	X	X	X	X
Behavioral Approach Test (BAT)					
B: Duration of speech	X			X	
S: Subjective fear					
P: Heart rate					
S: Probability and Cost Questionnaire	X		X	X	X
S: Anxiety Sensitivity Index (ASI-3)	X		X	X	X
S: Positive and Negative Affect Schedule (PANAS-20)	X		X	X	X
S: Sheehan Disability Scale (SDS)	X		X	X	X
Fear Conditioning, Extinction, and Extinction Generalization Task					
C: Expectancy of unconditional stimuli	X			X	X
P: Heart rate, skin conductance					
Implicit Pavlovian Association					
C: Implicit associations for fear-relevant word stimuli	X		X	X	

B = Behavioral, C = Cognitive, P = Physiological, S = Subjective/experiential

### **Principal Outcome Measures.**

Self-reported symptom severity of social anxiety and panic disorder at pre-treatment, mid-treatment, post-treatment, and follow-up. Self-reported symptom severity of social anxiety disorder and panic disorder will be assessed using the Liebowitz Social Anxiety Scale-Self Report (LSAS; Baker et al., 2002) and Panic Disorder Severity Scale-Self Report (PDSS-SR; Houck et al., 2002), respectively.

The LSAS is a 24-item measure of social anxiety symptoms during the past week. The measure assesses the severity (0 = none, 3 = severe) and frequency (0 = never, 3 = usually) of social anxiety and social avoidance, with total sum scores ranging from 0 to 144. Higher scores indicate greater symptom severity and frequency. The LSAS demonstrates excellent internal consistency and correlational data corroborate its convergent validity (Baker et al., 2002).

The PDSS-SR is a self-report instrument adapted from the interviewer-administered Panic Disorder Severity Scale which assesses panic disorder symptom severity. This self-report measure assesses panic-related anxiety, distress, and avoidance in the past week.

Clinician-rated severity of social anxiety or panic disorder. Clinician severity rating (0-8) of social anxiety or panic disorder will be assessed using the Structured Clinical Interview for DSM-5 (SCID-5). The SCID is a semi-structured diagnostic interview, which will be completed by trained graduate students and reliability-checked by Dr. Michael Treanor or Dr. Michelle Craske. This interview (1) diagnoses anxiety disorders, mood disorders, somatoform disorders, and substance disorders; and (2) screens for psychosis. The results of the diagnostic evaluation will be presented at weekly meetings with the Dr. Treanor or Dr. Craske, who will check the diagnostic judgment and eligibility of the subject. Potential participants must receive a clinical severity rating of four or higher for their social anxiety or panic disorder in order to be eligible.

## **Secondary Outcome Measures.**

**Behavioral Avoidance Test (BAT).** Participants will complete a public speaking task in which they will speak for a short period of time in front of an audience while being videotaped. Participants will be assigned a topic from a randomized list and have one minute to prepare while seated. During this anticipation phase, we will measure their heart rate. Participants will then enter a room containing a video camera and three seated confederates. The floor will be lined with ten, equidistant markers between the camera and the wall, and participants will be told they can choose any marker to stand upon and deliver their speech. Markers will serve as a measure of approach and avoidance. Participants will then provide an initial SUDS rating (Subjective Units of Distress Scale (SUDS); where 0 = no fear and 100 = extreme fear) and begin speaking. Participants will provide SUDS ratings every minute during the 5-minute speech task and their heart rate will be measured during the speech.

Following the COVID-19 pandemic, the BAT consisted of a 5-minute recorded speech via Zoom with three confederates (and the experimenter) present. SUDS ratings were obtained as above but heart rate was not measured.

**Mini-Social Phobia Inventory (Mini-SPIN; Weeks et al., 2007)** The Mini-Social Phobia Inventory is a three-item self-report measure derived from the Social Phobia Inventory which screens for social anxiety. The Mini-SPIN shows high internal reliability and consistency across studies and correlational data support its convergent and discriminant validity (Weeks et al., 2007). The Mini-SPIN will be administered weekly, prior to each session as well as pre-treatment, mid-treatment, post-treatment and follow-up.

**The PDSS-SR** is a self-report instrument adapted from the interviewer-administered Panic Disorder Severity Scale which assesses panic disorder symptom severity. This self-report measure assesses panic-related anxiety, distress, and avoidance in the past week. The PDSS-SR will be administered weekly, prior to each session, as well as pre-treatment, mid-treatment, post-treatment and follow-up.

**Probability and Cost Questionnaire.** The LSAS was modified to include probability (0-100) and cost/perceived aversiveness (0-100) ratings for if rejection occurred in each of the situations listed in the LSAS

**Anxiety Sensitivity Index (ASI-3; Taylor et al., 2007).** The Anxiety Sensitivity Index is an 18-item self-report measure which measures somatic concerns, social concerns, cognitive concerns, as well as global anxiety sensitivity.

**Positive and Negative Schedule (PANAS 20-item; Crawford et al., 2004)** Positive and Negative Affective Schedule (PANAS) is a widely used measure comprised of 20-items assessing positive affect and negative affect. Self-rated levels of positive affect and negative affect will be assessed ("during the past week"). The PANAS has high internal consistency and temporal stability. Correlational data support its convergent and discriminant validity. Confirmatory factor analyses support the construct validity of the PANAS.

**Sheehan Disability Scale (SDS; Sheehan, 1983)** The SDS will be used to assess the degree of impairment in daily functioning in (a) work activities, (b) social life and leisure activities, and (c) family life and home responsibilities (0-10 point scales).

**Fear Conditioning, Extinction, Extinction Generalization.** Fear extinction and extinction generalization will be measured using a laboratory-based fear conditioning and extinction paradigm. This experimental task is designed to measure extinction, retention of extinction learning, and generalization of extinction learning to novel stimuli. Multi-element "insects" consisting of figures comprised of various geometric shapes will be used for conditional stimuli and generalization stimuli. Dependent measures will include trial-by-trial US expectancy ratings, EMG startle response, skin conductance, heart rate and self-report valence ratings. Day 1 will entail conditioning and fear extinction. Participants will return 24 hours later for a test of extinction retention and extinction generalization. Acquisition will consist of seven trials of CS1+, CS2+, and CS- (21 trials total). Following self-report ratings, extinction will entail eleven trials of CS1, GS2 (a generalization stimulus of CS2 that employs elements from CS2 as well as novel elements), and CS- (33 trials total). Day 2 will entail tests of extinction retention (two trials of CS1) as well as tests of generalization of extinction (two trials of CS2 as well as a new generalization stimulus; GS2).

Implicit Pavlovian Associations. The Implicit Pavlovian Association (IPA) paradigm is a novel modified priming task designed to measure Pavlovian associations. Participants will engage in a lexical decision task where they have to decide with the target word is a word or non-word. Prior to each target words, 50 ms primes will be presented. Target words entail combinations of US (e.g., for social anxiety words may include “rejection”, “judgement”, etc.), no-US words (e.g., “acceptance”, “liked”, etc.), neutral words (e.g., “dinner”, “cook”) and non-words. Primes will include CS related (“party”, “speech”, etc.) or neutral words (“groceries”). Various combinations of primes and targets will be presented in order to assess the strength of CS-US and CS-no US associations.

### Sample Size

We used G\*Power 3.1.9.2 with the F test family; ANOVA: Repeated measures, within-between interaction.  $p = .05$ , power = .8, two groups, two measures, correlation among measures = .5, nonsphericity correction = 1. The anticipated effect size is  $f = .165$  (equivalent to  $d = .33$ ), based on Wechsler, Kumpers, and Muhlberger (2019) meta-analysis comparing two forms of exposure therapy. Power analysis suggests we need a total N of 62 participants who complete the study. With an expected attrition of approximately 25%, our estimated enrollment sample size is  $n = 90$ .

### Recruitment

We will achieve our target sample size through various recruitment efforts including placement of advertisements and flyers in local community recreational centers, religious centers, medical clinics and hospitals, low fee mental health clinics, and local newspapers in areas more densely populated by Asians, Hispanics and African Americans as well as through internet-based advertisements for all sites.

### Ethics and Dissemination

Clients will be under no obligation to consent, and will be informed that their decision will have no impact on their current or future treatment at UCLA. UCLA research personnel will obtain written informed consent from all participants. Changes to the protocol will be discussed by the Executive Committee and submitted as amendments to the IRB.

Individuals will be assigned a subject number upon entering the study. The post-baccalaureate research coordinator will place the participant's name and contact information on a code sheet next to their subject number. This code sheet will be stored on a password-protected computer in a locked laboratory with restricted access. Paperwork with identifying information will then be shredded. Only coded identifiers will be used for data archiving. Personal identifying information will be kept in a secure location, password-protected, and stored completely separate from any subject data that will be processed or analyzed for the research.

Results will be communicated and disseminated through publication in scientific journals, conferences, and other common research outlets. Any use of the study data would require strong contributions in the conceptualization of the paper to constitute authorship.

### Randomization and Masking

The research coordinator will enroll participants and assign them to interventions. Participants will be randomized 1:1 to either habituation or inhibition-based exposure therapy via centralized, computer-generated allocation sequences. Because of the nature of the study, only outcome assessors will be masked to group allocation.

### Statistical Methods

In order to examine the principal outcomes, we will use multilevel modeling Stata 17.0 to test a Condition x Time interaction in predicting normalized symptom scores. We will use repeated measures as a Level 1 factor and Condition as a Level 2 factor. Condition will be included as a categorical variable (Inhibitory, Habituation). For the principal analyses (LSAS and PDSS at pre-treatment, mid-treatment, post-treatment, and follow-up), Time will be included as a continuous variable. We will then follow-up with models using Time as a categorical variable involving three time-points (mid-treatment, post-treatment, 3-month follow-up) to examine differences at specific time points (post-treatment and follow-up) while simultaneously examining potential differences in the slopes of



the inhibitory retrieval and habituation condition from mid-treatment to post-treatment and post-treatment to follow-up. Similar models will be run for secondary outcomes (e.g., weekly Mini-SPIN, weekly PDSS, and BAT). Pre-treatment normalized symptom scores will be included as a covariate. As we conducted exposure therapy both in-person and remotely (due to COVID-19), we will also include Remote Therapy as a categorical factor (in-person, remote) in the models.

### Safety Monitoring

Study staff will be available 24 hours to respond to urgent issues. All staff will be able to provide information about local emergency facilities. The therapist will generally be the first person to respond to a participant with a problem. They will handle some events immediately. If they are not able to manage the emergency event, they will contact the PIs, who will also be available 24 hours by cell phone to assist with participant management or crisis intervention.

Monitoring and reporting of all adverse events. The following adverse events will be monitored: suicide attempts, study dropout, psychiatric hospitalizations, and clinical deterioration, defined as emergent suicidal ideation or suicidal plan, or emergence of a new psychiatric or medical diagnosis or behavior posing significant risk to the subjects or others.

The following grading system will be used to assess the seriousness of any adverse events:

0 No adverse event or within normal limits

1 Mild adverse event

2 Moderate adverse event

3 Severe adverse event resulting in hospitalization or a persistent or significant disability/incapacity

4 Life-threatening or disabling adverse event

5 Fatal adverse event

Study research staff will be trained in what events to look for and to report any such events to Drs. Craske. If the event is graded 2-4, Drs. Craske will interview the Ps and take the appropriate action. Drs. Craske can be reached promptly by telephone. UCLA's IRB will be notified within 24 hours of any serious adverse events (SAEs), in the 3-5 range. Within a week of any SAEs, Dr. Craske will determine whether the adverse event affects the Risk/Benefit ratio of the study and whether modifications to the protocol (at Risks to Subjects) or consent form (at Risks and Inconveniences) are required. Dr. Craske or the IRB has the authority to stop or modify the study.

Dr. Craske will conduct a review of all non-serious adverse events at least quarterly. They will evaluate the types, frequency, and severity of the adverse events and determine if modifications to the protocol or consent form are required. If an event qualifies as a serious adverse event, then the serious adverse event will be reported to IRB. A summary of the nonserious adverse events will be reported to the IRB at minimum, when yearly re-approval of the IRB protocol is sought. The summary will include number of Ps enrolled, treatment retention and reasons for drop-out, and a synopsis of graded adverse events to date. Dr. Craske or the IRB has the authority to stop or modify the study.

### Protocol Amendments

Date	Change
05/05/2016	The Acceptance and Action Questionnaire (AAQ) was removed from the protocol.
05/19/2017	The Fear Inhibition Questionnaire (FIQ) was added to the protocol.
March 2020	<u>COVID Protocol Changes</u> . Due to the COVID-19 outbreak, all study procedures will be adapted to a virtual format, i.e.,

	<ul style="list-style-type: none"> <li>• All of our therapy sessions will be conducted via a video teleconferencing platform called Zoom.</li> <li>• Access to telehealth resources (for Zoom treatment sessions) has been added to inclusion criteria.</li> <li>• All collection of psychophysiological data collection (e.g., skin conductance, heart rate) has been discontinued as of March 2020.</li> <li>• Behavioral tasks been adapted for remote accessibility.             <ol style="list-style-type: none"> <li>1. <u>Mobile Generalization of Learning</u>: delivered electronically through the FLARe mobile application. Participants will be asked to download the FLARe application on their mobile device (free of charge, using a unique study ID and password). The first task is designed to measure generalization of acquired fear. It will consist of the following types of stimuli: two CS+, one CS-, and eight generalization stimuli (GS's). All stimuli presented during the fear conditioning paradigm were modeled after Barry et. al, 2014, and consisted of artificial, two-dimensional combinations of abstract shape and color that mimicked the general structure of real-world animals. This task will consist of three phases: acquisition, extinction and retest (retest will occur on day 2). Acquisition will consist of 28 trials: 7 presentations of CS1+, 7 presentations of CS2+ and 14 presentations of the CS-. On CS+ trials, the CS+ stimuli will be paired with the US (i.e., an aversive sound). The US will never be paired with the CS-. The acquisition phase is designed to teach participants to associate the CS+ stimuli with the US such that the CS+ comes to predict the US. The extinction phase will involve 33 trials: 11 presentations of the CS1+, 11 presentations of a novel stimulus (GS+), similar in appearance to that of CS2+, and 11 presentations of the CS-. CS+ trials will not be presented with the US during this phase.</li> <li>2. <u>Virtual Behavioral Avoidance Test (BAT)</u>: the BAT has been adapted to a virtual format such that speeches will occur over Zoom.</li> </ol> </li> </ul>
2021	<p><u>Experimental Sampling</u>. Participants will be prompted twice per day, once in the morning and once at night, with Qualtrics links. These links will be sent at 9am and 6pm, and they will expire after 6 hours. Participants will receive these links for five days, beginning the evening of their second and eighth sessions. They will also receive text reminders two hours prior to the expiration date as required.</p> <p>On the first day, they will only receive the evening survey. Thus, they will receive 18 total surveys. In addition, participants will complete a virtual assessment to measure cognitive response to emotional material. This virtual session will last approximately two hours in which participants will engage in several tasks, each separated by a rest interval of five minutes. The lab assessment will be split over two days, separated by approximately one week.</p>

## References

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## **CONSENT TO PARTICIPATE IN RESEARCH for Treatment Participants**

### Optimizing Exposure Therapy for Anxiety Disorders

Michelle G. Craske, Ph.D., from the Department of Psychology at the University of California, Los Angeles is conducting a research study. You were selected as a possible participant in this study because of your responses to a questionnaire administered over the phone, which indicated that you may experience elevated symptoms of panic disorder or social anxiety disorder. If eligible, you will be asked to participate in this study for up to 6 months.

Your participation in this study is voluntary. You should read all the information below, and ask questions about anything that you do not understand, before deciding whether or not to participate. Research designs often require that the full intent of the study not be explained during participation. Although we have described the general nature of the tasks that you will be asked to perform, there may be occasional details that are not revealed for the sake of accurate data collection. After the study, we will provide you with a full debriefing which will include relevant background information pertaining to the study. You will also be given an opportunity to ask any questions you might have about the hypothesis and the procedures used in the study.

#### **Why is this study being done?**

The purpose of this study is to examine the effectiveness of two different types of therapy for individuals with panic disorder or social anxiety disorder. Both treatments involve repeatedly confronting feared sensations and situations, known as exposure therapy. One treatment focuses on methods to enhance the learning that occurs during exposure therapy, while the other emphasizes reducing fear during exposure therapy. Each of these therapies includes components and therapeutic strategies that have been demonstrated to be effective.

#### **What will happen if I take part in this research study?**

If you volunteer to participate in this study, we would ask you to do the following things:

Further screening procedures will be conducted to determine if the study is appropriate for you. Screening procedures will include a diagnostic interview dealing with anxiety and other psychological problems, use of illicit drugs and medical history. This interview will last approximately 2 hours. Before starting the interview, you will be asked whether or not you agree to allow your interview to be observed by trainee graduate students. The trainee graduate students may observe the interview behind a one-way mirror, which means that they will not be present in the room with you. If you are seeing another mental health provider (e.g., psychiatrist) we will ask you to sign a release of information (optional) so we can contact the other provider and inform them of your participation in our treatment study. If you are on medication for anxiety or depression, we would like to inform your medication provider that it would be helpful for

you to remain on the same type and dosage of medication for the 9 week treatment program. We will request that your provider inform us directly of any prescription changes. If it is determined that the study is not appropriate for you, your participation will end at that point.

During participation in the study, you will receive 9 weekly treatment sessions with a trained therapist. You will be randomly assigned, or by chance, to one of two treatments. One treatment focuses on methods to enhance the learning that occurs during exposure therapy, while the other emphasizes reducing fear during exposure therapy.

All of the treatments will be conducted by fully trained, senior clinical psychology doctoral students, with the aid of a senior research staff or junior clinical psychology graduate students from the UCLA Psychology Department, or experienced cognitive-behavioral therapists. All of the treatment sessions will be audio- and videotaped. This is done in order to monitor reliability and consistency among the therapists. You will have the right to review, edit, or erase the research tapes containing your participation in whole or in part.

Upon completing the treatment phase of the study you will be asked to complete two diagnostic evaluations with one of our research staff. The diagnostic evaluations will cover anxiety and other psychological disorders. These evaluations will occur before and after treatment, as well as three months after completion of the treatment phase. Each evaluation will last approximately 1 hour.

You will also be asked to complete laboratory assessments with one of our research staff. During these assessments your behavior, your physical responses (heart rate, sweat gland activity, muscle tension, respiration and skin temperature) will be monitored and recorded while you are asked to attempt the tasks. Your physical responses will be measured by electrodes that are taped to your skin. You will complete additional tasks on the computer prior to several of the treatment sessions. Also, you will be asked to fill out a series of questionnaires dealing with anxiety symptoms.

The diagnostic interview, laboratory assessment, behavioral assessment and questionnaires will be administered at baseline, prior to starting treatment. All of these measures will be repeated immediately after treatment, and 3 months after completing the study. In addition, you will be asked to complete a brief laboratory assessment midway through treatment.

You will be asked to inform us if you seek other forms of medical and/or psychological treatment for anxiety disorders before completion of our post-treatment assessment (which is completed at the end of the 9 weeks of treatment).

All 9 treatment sessions must be completed within 12 weeks. In addition, you may be removed from the study if you miss more than 3 treatment sessions without notifying study staff within 24 hours of your scheduled session.

If you delay starting therapy for 6 or more weeks following your diagnostic interview, you may need to complete the pre-treatment diagnostic assessment and laboratory tasks again.

**How long will I be in the research study?**

Overall, your involvement in the study will last approximately 6 months (approximately 1 month for initial assessment, 2 months for treatment, and follow-up assessments after treatment, at 3 months after completion of treatment).

**Are there any potential risks or discomforts that I can expect from this study?**

There are no known risks associated with the initial diagnostic evaluation or any of the follow-up assessments beyond any discomfort you might experience talking about your medical and psychological history.

During the treatment phase of the study, you may experience anxiety from being asked to face things that cause you distress, or being asked to confront situations and feelings that you find anxiety provoking.

During one laboratory task, we will attach electrodes to your bicep which is connected to a muscle stimulator. The stimulator will intermittently send an electrical signal, resulting in a mild 'shock', to the muscles in your arm throughout this task and may feel uncomfortable. However, we will start with a very low signal and build up to a level that is uncomfortable for you, but not painful.

You have the right to refuse to answer any question that you do not wish to answer, and to refuse any task that you do not wish to do.

**Are there any potential benefits if I participate?**

Findings from this study may help clinicians provide more effective treatments for psychological disorders. Research has shown that these treatment approaches are likely to be of benefit to those who exhibit symptoms similar to yours. It is important to note that individuals respond differently to therapy and thus it is not possible to know in advance if the treatment will be helpful in your particular case. However, potential benefits may include significant reductions in your symptoms of anxiety.

Furthermore, you will be provided with additional or alternative treatment referrals at any point in time along the study if you make such a request.

**What other choices do I have if I choose not to participate?**

Medication or therapy (e.g., cognitive-behavioral therapy) from other providers are acceptable alternatives to participating in this study. If you would like, we will provide you with a referral list.

**Will I be paid for participating?**

You will not be paid for participating in this study.

### **Are there any costs for taking part in this study?**

You will receive diagnostic evaluations and treatment for free. You will be responsible for paying for parking during your visits to UCLA.

If you are concerned about your physical fitness for participation, we suggest that you seek a physical exam from your primary physician. If you choose to do so, this cost will not be reimbursed by the study. A physical exam is not required for participation.

### **What happens if I believe I am injured because I took part in this study?**

It is important that you promptly tell the researchers if you believe that you have been injured by taking part in this study. You can tell the researcher in person, or call her and the number listed below.

Michelle Craske, Ph.D.  
UCLA Anxiety Disorders Research Center  
Department of Psychology  
Franz Hall - Box 951563  
Los Angeles, CA 90094-1563  
(310) 825-8403

If you are injured as a result of being in this study, UCLA will provide necessary medical treatment. The costs of the treatment may be covered by the University of California, or billed to you and your insurer just like other medical costs, depending on a number of factors. The University does not normally provide any other form of compensation for injury. For more information about this you may call the UCLA Office of the Human Research Protection Program at 310-825-5344 or send an email to [mirb@research.ucla.edu](mailto:mirb@research.ucla.edu).

### **Will information about me and my participation be kept confidential?**

The researchers will make every attempt to protect your confidentiality and to make sure that your personal identity does not become known.

You need to be aware that the investigator will need to disclose information including reporting to authorities to prevent harm to yourself or others. In the event that you tell the research or clinical staff that you are thinking about suicide, or you answer yes to a question to having thoughts about suicide the research staff will ask you more questions about the thoughts. Depending on how intense the thoughts are or how much you feel like hurting yourself, the research staff may provide you with referrals for treatment, work with you to contact your personal physician, trusted family member, or therapist to discuss your thoughts of harming yourself, or work with you on a plan that may include getting you to a hospital for safety.

This signed consent form will be stored in a locked file that will be accessible only to a very small number of the authorized people involved in this project. The research will carefully follow the coding, storage, and data sharing plan explained below.

Some identifiable information about you will be replaced with a code. A list linking the code and your identifiable information will be kept separate from the research data. All research data and records will be maintained in a secure location at UCLA. Only authorized individuals will have access to it. Some research data and records will be stored electronically on a secure network with password protection.

All of the diagnostic evaluations will be audio taped and some of them will later be reviewed by research staff to evaluate how well the evaluations were conducted. You have the right to review, edit or erase, in part or whole, the audiotapes containing your participation. The data and audiotapes will be stored five years after the study has been completed then they will be destroyed. If you are ineligible for the study, we will still need to enter some of your screening information in our database. However, the diagnostic interviews and any other screening information will be shredded and there will be no personal identifiers between your data that is in the database and yourself.

### **What are my rights if I take part in this study?**

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.
- Whatever decision you make, there will be no penalty to you, and no loss of benefits to which you were otherwise entitled.
- You may refuse to answer any questions that you do not want to answer and still remain in the study.

The investigator may withdraw you from this research if circumstances arise which warrant doing so. The decision may be made either to protect your health and safety, or because it is part of the research plan that people who develop certain conditions may not continue to participate.

### **Who can I contact if I have questions about this study?**

If you have any questions or concerns about the research, please feel free to contact Michelle G. Craske, Ph.D.,  
Professor of Psychology,  
Director of the Anxiety Disorders Research Center  
University of California Los Angeles  
Franz Hall 3170  
(310) 825-8403

### **UCLA Office of the Human Research Protection Program (OHRPP):**

If you have questions about your rights while taking part in this study, or you have concerns or suggestions and you want to talk to someone other than the researchers about the study, please call the OHRPP at (310) 825-7122 or write to:

UCLA Office of the Human Research Protection Program



11000 Kinross Avenue, Suite 211, Box 951694  
Los Angeles, CA 90095-1694

**SIGNATURE OF RESEARCH SUBJECT**

\_\_\_\_\_  
Name of Subject

\_\_\_\_\_  
Signature of Subject

\_\_\_\_\_  
Date

**SIGNATURE OF INVESTIGATOR**

In my judgment the subject is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research study.

\_\_\_\_\_  
Name of Person Obtaining Consent

\_\_\_\_\_  
Contact Number

\_\_\_\_\_  
Signature of Person Obtaining Consent

\_\_\_\_\_  
Date

