Protocol Title: Online Mindfulness-based Tic Reduction (Phase Two)

NCT03771235

The following document details the IRB-approved protocol prior to the enrollment of the first participant (IRB approval date of October 23, 2018). Subsequent modifications are summarized at the end of the document.

Document prepared on: April 25, 2024

PI Name: Hannah E. Reese, Ph.D. **Department: Psychology**

Project Title: Online Mindfulness-based Tic Reduction: Development and Testing (Phase Two)

SECTION I: INVESTIGATOR: Check one: [ ] Student [**X**] Faculty [ ] Staff [ ] Other _____

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SECTION II: PROJECT/STUDY INFORMATION

Title: Online Mindfulness-Based Tic Reduction: Development and Testing (Phase Two)

- Anticipated Start & End Dates: 09/01/2018 – 08/31/2021

SECTION III: SUBJECT POPULATION: Indicate the subject population(s) that will be involved in the research project.

[X]Adults (competent to consent) [ ]Adults (not competent to consent) [ ]Non-English speaking

[ ]Minors (under 18 years old) [ ]Prisoners [ ]Pregnant Women [ ]Developmentally Disabled

SECTION IV: FUNDED PROJECTS

Has this project been submitted for external funding? [X] Yes [ ] No -- If yes, complete below:

What kind of funding will this project receive? [ ] None [X] Grant /Contract [ ] Fellowship

Principal Investigator on Project: Hannah E. Reese, Ph.D.

Funding source: Tourette Association of America

Project Title: Online Mindfulness-based Tic Reduction: Development and Testing

Are the contents of this protocol identical to those described in the funded proposal application? [] Yes [X] No

SECTION V: SIGNATURES

INVESTIGATOR: I accept responsibility for the research protocol described herein. I am aware of all the procedures to be followed & I will monitor the research & notify the IRB of any CHANGES or significant problems. Further, I certify that I have undergone training in basic human subjects protections.

Principal Investigator's Signature: __Removed for public posting_____ Date: _____/_____/_____

SECTION VI: VERIFICATION OF HUMAN SUBJECTS TRAINING *(*certificates must be attached to application and must be updated every 3 years*)*

Removed for public posting

SECTION VII: PROTOCOL DESCRIPTION

WHAT IS THE PURPOSE OF THE STUDY?

The purpose of this study is to determine the efficacy of a Mindfulness-based Intervention for Tics (MBIT) as compared to online psychoeducation, relaxation, and supportive therapy (dubbed Tic Information and Coping Strategies or TICS) in 48 adults with tic disorders.

We hypothesize that MBIT will result in significantly greater improvements in tic severity and tic-related impairment than TICS.

HOW WILL THE INFORMATION COLLECTED IN THE STUDY BE USED (examples: independent study, honors project, publication)

The results of this study may be presented at scientific conferences and/or published in the scientific literature. De-identified data from this study may also be combined with de-identified information from other research studies to answer additional research questions.

WHAT QUESTIONS WILL BE ANSWERED?

How efficacious is MBIT when compared to TICS for adults with tic disorders?

DESCRIPTION OF HUMAN SUBJECT POPULATION, TIME INVOLVEMENT & CONFIDENTIALITY

Participants

We aim to recruit 48 adults to participate in this study. To be eligible for participation, these individuals must:

1) be 18 years of age or older,
2) possess a primary diagnosis of Tourette Syndrome or Persistent Tic Disorder,
3) be fluent in English

4) reside in the United States,

5) either not be taking any tic suppressant medication or other psychotropic medication or be at a stable dose for 8 weeks prior to the baseline assessment and throughout the study

And must NOT:

1) be receiving concurrent psychotherapy for the duration of the study

2) have prior extensive experience with mindfulness and/or meditation and

3) have another medical or psychological condition that would prevent the individual from fully engaging in the study or require a higher level of care (e.g., suicidality).

Recruitment & Selection

We will recruit participants via online postings on the Bowdoin College website, the Massachusetts General Hospital website and facebook page, the Tourette Association of America (TAA) website and, with permission, the websites of other Tourette Syndrome Research or Clinical Centers in the US. We will also contact our colleagues in the field as well as state and local TAA chapters and support groups by email to inform them of the study. All recruitment materials are attached for review.

Time Involvement

Participants will complete the study in approximately 9 months. During this time, each participant will spend approximately 6 hours completing formal assessments (2 hours for the screening visit, 1 hour each for the baseline, post-treatment, 1-month and 6-month follow-up assessments) and approximately 6 hours per week for 8 weeks completing the intervention and self-report questionnaires.

Payment

Participants will be compensated a total of $200 each ($10/week for the weekly self-report questionnaires, $30 each for the baseline, post-treatment, one-month and 6-month follow-up assessments).

Type of Involvement

Interested participants will complete a brief phone interview (see attached) with J. Shin to determine provisional eligibility. Potentially eligible participants will then be scheduled to complete informed consent with the PI via phone or videoconference and a formal screening assessment with the Independent Evaluator (IE; B. Summers @ MGH) via videoconference. After screening, eligible participants will be randomly assigned to one of the two interventions: online mindfulness-based tic reduction or online psychoeducation, relaxation, and supportive therapy. Once we have enough eligible participants to form a group (approximately 6-8 participants), we will schedule baseline assessments via videoconference with the IE for the week prior to the initiation of the intervention. Both interventions will last 8 weeks and consist of eight weekly 90-minute therapist-facilitated group videoconferences. Approximately one week, one months, and 6 months after completion of the intervention, participants will complete a follow-up assessment with the IE via videoconference.

Please see the attached protocol schema for a concise overview of the study procedures.

Interventions

Mindfulness-based Intervention for Tics (MBIT)

Mindfulness-based interventions typically involve three components: mindfulness practice (e.g., meditation, mindful movement), psychoeducation, and inquiry (i.e., group discussion of the practice and the application of the practice to one's life). In this online adaptation we will offer the intervention in eight weekly 90-minute therapist-facilitated group videoconferences. The PI or W. Alan Brown will facilitate the weekly videoconferences. All participants will also be asked to complete approximately 30 minutes/day 4-6x/week of home practice.

Tic Information and Coping Strategies (TICS)

The TICS condition will mirror the mindfulness-based tic reduction condition in format and duration. In the video conferences, participants will be encouraged to discuss a weekly topic (e.g., causes of tics, talking to others about your tics, how tics affect your relationships) or skill (e.g., relaxation, communication) and provide social support to one another. Formal home practice will not be assigned. The PI or Alan Brown will facilitate these conversations.

Assessment

Table 1. Schedule of Assessments

Measures	Screening	Baseline (Week 0)	Weeks 1-8	Week 9	Week 13	Week 35
SCID	X					
YGTSS	X	X		X	X	X
CGI-S	X	X		X	X	X
CGI-I				X	X	X
TTHQ	X					
ATQ		X		X	X	X
PUTS		X	X	X	X	X
YBOCS		X		X	X	X
ADHD-RS		X		X	X	X
PHQ-9		X		X	X	X
DASS		X		X	X	X
WSAS		X		X	X	X
FFMQ		X	X[a]	X	X	X
CEQ			X[b]			
PSQ				X		
SCS		X		X	X	X
ARI		X		X	X	X
BITe		X		X	X	X
Tic Rating Form			X			
Problem Rating Form			X			
Homework Adherence Form			X[c]	X		
Adverse Event Monitoring Form			X	X		

Treatment Questionnaire					X	X

[a] The FFMQ will only be administered at week 4.
[b]The CEQ will be administered only after week 3 of the intervention.
[c]The Homework Adherence Form will only be administered to participants in the MBIT condition because they are the only ones who will receive formal home practice assignments.

Structured Clinical Interview for DSM-5 (SCID). The SCID is the gold-standard in semi-structured diagnostic interviews to establish DSM-5 diagnoses (First, Williams, Karg, & Spitzer, 2015). We will administer the SCID at screening to assess for the presence of current or past DSM-5 disorders.
Yale Global Tic Severity Scale (YGTSS). The YGTSS is the gold-standard clinician-rated instrument for assessing tic severity (Leckman et al., 1989). It has demonstrated excellent internal consistency, inter-rater reliability, and convergent and divergent validity (Leckman et al., 1989). The total tic score will serve as the primary outcome measure because it has demonstrated the greatest sensitivity to change in tic severity over brief periods of time (Lin et al., 2002).
Clinical Global Impression-Severity (CGI-S) and Clinical Global Impression-Improvement (CGI-I) Scales. The CGI-S and CGI-I are well-established clinician-rated measures of severity and improvement (Guy et al., 1976). Consistent with other treatment outcome studies in TS and CTD (e.g., Piacentini et al., 2010), we will define treatment responders as those who receive a rating of 'Very Much Improved' or 'Much Improved' on the CGI-I.
Tic Treatment History Questionnaire (TTHQ). This is a clinician-rated questionnaire assessing past and current treatments.
Adult Tic Questionnaire (ATQ). The ATQ (Abramovitch, Reese, Woods, Peterson, Deckersbach, Piacentini, et al., 2015) is a 28-item self-report measure of the presence, frequency, and intensity of motor and vocal tics.
Premonitory Urge to Tic Scale (PUTS). The PUTS (Woods, Piacentini,Himle, and Chang (2005) is a 10-item self-report measure of the presence of intensity of premonitory urges to tic.
Yale-Brown Obsessive-Compulsive Scale (Y-BOCS). The Y-BOCS is the gold-standard clinician-rated measure of obsessive-compulsive disorder severity (Goodman, Price, Rasmussen, & Mazure, 1989a; 1989b).
Attention Deficit Hyperactivity Disorder (ADHD) Rating Scale. The ADHD Rating Scale is a 20-item scale derived from the ADHD criteria in DSM-5 (DuPaul, Power, Anastopoulos, & Reid, 2016).
Patient Health Questionnaire-9 (PHQ-9). The PHQ-9 is a widely-used 9-item self-report measure of depression (Kroenke, Spitzer, & Williams, 2001).
The Depression, Anxiety and Stress Scale (DASS). The DASS is a widely used 42-item self-report measure of depression, anxiety, and stress (Lovibond & Lovibond, 1995).
The Work and Social Adjustment Scale (WSAS). The WSAS (Mundt, Marks, Shear, & Greist, 2002) is a 5-item self-report measure of the degree of impaired functioning attributable to a specific syndrome/disorder.
Five Facet Mindfulness Questionnaire (FFMQ). The FFMQ (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) is a widely-used 39-item self-report measure of five aspects of mindfulness: observing, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience.
Credibility and Expectancy Questionnaire (CEQ). The CEQ is a widely used 6-item self-report measure of the degree to which an individual finds their treatment credible and expects that it will lead to an improvement in their symptoms.
Patient Satisfaction Questionnaire (PSQ). The PSQ is an 8-item scale that assesses patients' satisfaction with treatment.
Self-Compassion Scale (SCS). The SCS is a 26-item self-reports measure of levels of self-directed compassion (Neff, 2003).

Affective Reactivity Index (ARI). The ARI is a 7-item self-reported measure of irritability (Stringaris et al., 2012).
Brief Irritability Test (BITe). The BITe is a 5-item self-reported measure of irritability (Holtzman et al., 2015).
Tic Rating Form. A brief idiographic self-report rating of the severity of each participant's tics.
Problem Rating Form. A brief idiographic self-report rating of the severity of problems associated with tics.
Homework Adherence Form. A brief self-report assessment of the amount of home practice completed.
Adverse Event Monitoring Form. A brief self-report assessment of adverse events.
Treatment Questionnaire. A brief self-report assessment of other treatment received since completing study intervention.

Confidentiality

All information gathered about study participants will be kept strictly confidential. Participants will be assigned a confidential study ID which will be used to identify all online subject data and materials. The key linking participant names to the study ID will also be kept in a password protected file. Data will be stored on secure servers and/or in locked offices. Only study personnel will have access to study information. All videoconferences will be conducted via zoom.us, a secure, HIPAA compliant web-based videoconferencing platform.

We will also apply to the National Institute of Neurological Disorders and Stroke for a Certificate of Confidentiality for this study. We have included the recommended Certificate of Confidentiality statement in the attached consent form.

Because Massachusetts General Hospital is a HIPAA-covered entity, we have also included a privacy statement (drafted by MGH) in the consent form.

Because this is an online study, we will communicate with participants by email. We will inform all participants that we cannot guarantee the security of communications via email and that if they have questions or concerns that they do not want to share via email they should call study staff.

Audiorecording

We will audio record the administration of the YGTSS at every assessment and 15% of assessments will be randomly selected for co-rating by Dr. Reese to ensure consistency in administration and determine inter-rater reliability. The audio recordings will be made by the IE on a digital voice recorder. The digital recordings will be labeled with the participant ID and saved to a password protected server at Massachusetts General Hospital. All digital recordings will be deleted following the completion of co-ratings.

Data Collection and Storage

Data will be collected via Qualtrics and housed on their secure server. For analysis, researchers will download study data from this server and save it in a password protected database on the Bowdoin server. All data collected on paper (phone screens, the SCID) will be stored in locked filing cabinets in secure offices.

Risks

It is possible that participants will experience mild emotional distress due to the personal nature of some of the questions. With the exception of questions necessary to determine eligibility, participants will be allowed to skip any questions that they do not feel comfortable answering.

It is also possible that participants will experience mild physical discomfort when completing the relaxation, mindful movement, or meditations. Participants will be instructed to engage in the practices at a level that feels comfortable for them.

It is also possible that participants will experience transient tic worsening when conversing with others with tics in the group videoconferences.

Meditation and supportive therapy can also be challenging and may make participants more aware of negative aspects of their lives. Additionally, although unlikely, intense meditation could cause or worsen symptoms in people who have certain psychiatric problems.

Adverse events will be assessed weekly. The PI (a licensed clinical psychologist with 10+ years of experience working with adults with tic disorders), will review and monitor all reported adverse events and determine, in consultation with Dr. Wilhelm, (a licensed clinical psychologist and the chief of psychology at Mass. General Hospital) what steps, if any, are needed to address the event. Additionally, participants will be encouraged to contact the PI via phone with any concerns.

Benefits

It is possible that participants will not directly benefit from this study. It is also possible that participants will experience a reduction in tic severity, intensity, or related impairment and/or positive changes in anxiety, mood, attention, irritability, or quality of life.

RESEARCH DESCRIPTION /INFORMED CONSENT

Participants will learn about the research through online advertisements, clinician referral, or word of mouth. Interested participants will then complete a phone screen and have the opportunity to ask questions about the research. Potentially eligible participants will then review the online consent form with the PI via phone or videoconference and have another opportunity to ask questions. Individuals who wish to participate in the study will be asked to electronically sign the consent form and return it to us via email prior to the screening assessment.

RESEARCH SITE(S)

This research will be conducted at Bowdoin College and Massachusetts General Hospital. Bowdoin College will serve as the central IRB for the study. Per Massachusetts General Hospital policy, after obtaining Bowdoin College approval, we will submit a central IRB application and copies of all Bowdoin-approved materials to the Mass. General Hospital/Partners Healthcare IRB for review.

SUBSEQUENT MODIFICATIONS

Eight modifications to the protocol were made subsequent to enrollment of the first participant. Four of these pertained to the addition or removal of study staff. Two pertained to the addition of new advertisements. One allowed for the inclusion of pregnant women (approval date 12/8/18). One added an assessment relevant to the COVID-19 pandemic (approval date 6/24/20).