PROTOCOL TITLE:

Symptom-Targeted Randomized Intervention for Distress and Adherence to Adjuvant Endocrine Therapy (STRIDE) among Breast Cancer Survivors: A pilot feasibility trial

PRINCIPAL INVESTIGATOR:

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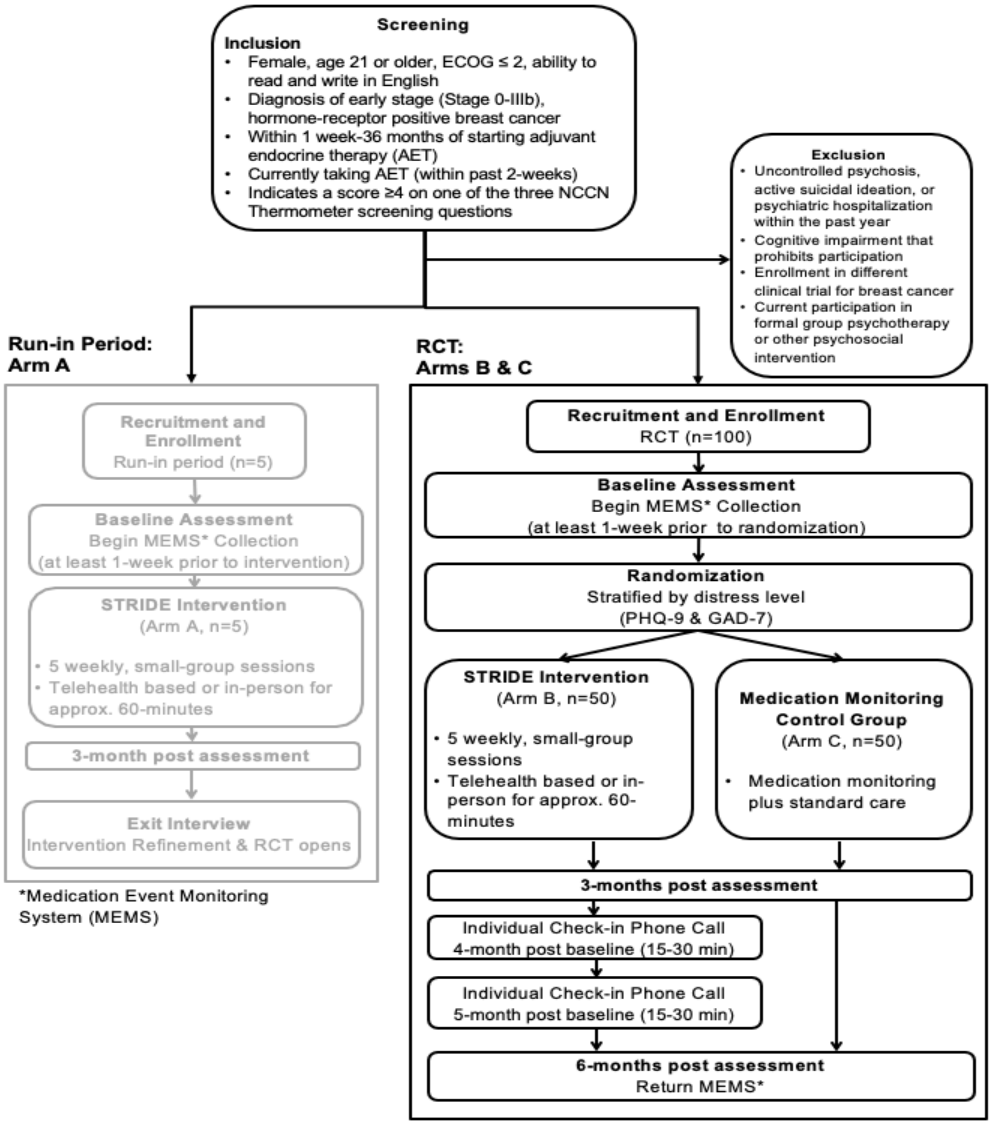
Protocol Schema: Run-in & RCT



Objectives

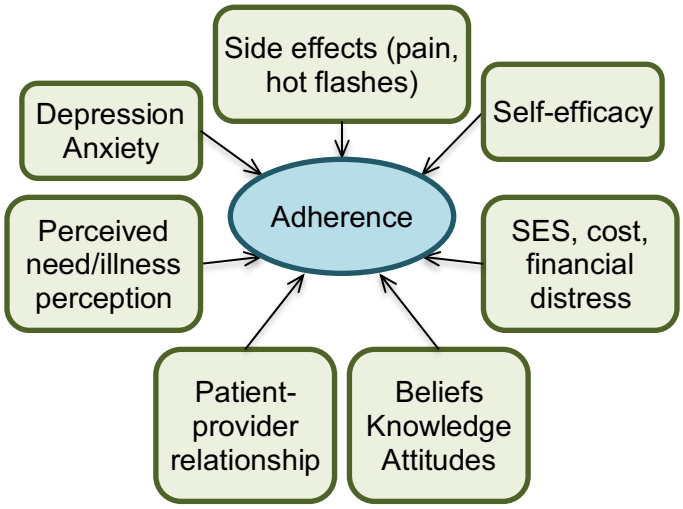
1.1 Overview

Development and testing of an evidence-based, videoconference, tailored intervention to enhance adherence to adjuvant endocrine therapy, improve symptom management, and reduce distress for breast cancer survivors

The majority of breast cancer is hormone sensitive and treated with 10 years of adjuvant endocrine therapy (AET) (i.e., tamoxifen, aromatase inhibitors) to reduce risk of recurrence and improve survival; however, adherence to AET among breast cancer survivors (BCS) is overwhelmingly poor, with half of women becoming non-adherent within five years. Difficulty coping with symptoms and psychosocial distress (i.e., depression or anxiety) are major barriers to adherence. There is a dearth of efficacious interventions targeting the needs and adherence challenges of BCS prescribed AET. To address this gap, the proposed study employs a mixed-methods design to develop and test an evidence-based, psychosocial videoconference intervention (STRIDE) to enhance adherence to AET, improve symptom management, and reduce distress in s at Massachusetts General Hospital Cancer Center and three community satellite sites. Phase 1 included (1) semi-structured interviews with BCS on AET (n=30) and intervention development with psychologists and oncology clinicians (DF/HCC Protocol #17-201). Phase 2 will entail a run-in phase (Arm A; n=5) to evaluate acceptability and refine the intervention and a randomized controlled trial (Arm B; n=100) to assess the feasibility of comparing the STRIDE intervention to a medication monitoring control with assessments and adherence monitoring over the course of six months. This study lays the groundwork for a full-scale randomized controlled trial to assess efficacy of the psychosocial videoconference intervention to improve symptom management, enhance adherence to AET, and reduce distress for BCS.

Theoretical basis for proposed intervention The proposed study aims are based on guidelines for developing behavioral interventions to manage chronic diseases: the Obesity-Related Behavioral Intervention Trials (ORBIT) Model, put forth by NIH and the Office of Behavioral and Social Sciences Research.[1] ORBIT is a progressive framework that encourages ongoing adjustment to the intervention as the study unfolds, which is distinct from testing of a fixed protocol. The model emphasizes 1) designing or adapting the behavioral intervention based on drivers of behavior that are treatment targets and refining practical intervention aspects (i.e., mode of delivery, duration) using methods such as qualitative data collection to evaluate and revise content (Phase 1 of the proposed study, DF/HCC Protocol #17-201) using proof-of-concept and feasibility pilot studies to justify a behavioral efficacy trial (Phase 2 of the proposed study: this protocol). The design is informed by a framework for medication adherence,[2,3] the Cognitive Model of Adjustment to Cancer,[4] and the Health Belief Model[3,5,6] (HBM; see Figure 1). Step 1 is informed by Murray's[2] framework for medication adherence. The proposed intervention will address patient and treatment factors with strategies for reducing distress, monitoring and managing side effects, and addressing the interaction between psychological and medical adherence concerns.[4] The HBM, in the context of cancer and adherence,[7] maintains that the health behavior (i.e. taking medication) will be adopted if the patient perceives (a) risk for a condition, (b) that the medication will reduce risk/severity, (c) that benefits outweigh costs, and (d) self-efficacy for taking medication.[3,5] In line with this model, the proposed intervention aims to improve medication-taking behavior by addressing perceived risk and medication efficacy.

Figure 1. Conceptual Model



Innovation of proposed study

This will be the first study to develop and test an evidence-based intervention that is flexible, portable, and tailored to address AET adherence barriers unique to BCS. The proposed strategy implements a mixed-methods design based on the ORBIT model,[1] integrates a comprehensive conceptual framework, adapts an established, evidence-based treatment, and employs novel technologies in the following three ways: 1) Tailored intervention content. 2) Videoconferencing. The use of tele-mental health ZOOM technology limits barriers to treatment such as cost, time, and travel, thereby increasing access to behavioral health interventions.[8] We will extend the use of videoconferencing to BCS reporting difficulty managing their AET. 3) Objective, electronic measurement. Since self-report methods tend to yield overestimates of adherence;[9-12] We will use the Medication Event Monitoring System (MEMS[13]) in addition to self-report measures. Thus, this study employs existing technologies in a novel setting to model longitudinal change in AET adherence in the intervention and control groups.[13]

Specific Aims

1. Primary Aim. To examine the feasibility and acceptability of a tailored, small-group, Telehealth intervention (STRIDE) compared to a medication monitoring control for survivors of breast cancer taking AET.

   Hypothesis 1: The study will be feasible, defined by recruitment (enrollment rate > 50%), retention (follow-up assessment completion rate > 70% of all participants who complete baseline) and attendance (attendance rate of at least 70% of participants completing at least 4 of 6 sessions [67%]).

   Hypothesis 2: The study will be acceptable demonstrated by >75% of participants reporting average satisfaction scores greater than the scale's mid-point (Client Satisfaction Questionnaire).

2. Secondary Aim: To assess effects of the STRIDE intervention on adherence to AET, symptom distress, and satisfaction with AET.

   Hypothesis 2: We hypothesize that participation in the STRIDE intervention will be associated with an increase in adherence and satisfaction with AET and a decrease in symptom distress at 12-weeks compared to the medication monitoring control, and that these improvements will maintain at 24-week follow-up.

3. Exploratory Aims:

   a. To assess the effects of the STRIDE intervention on several psychosocial constructs, exploring potential mediator and moderators of the intervention.

   Exploratory Hypothesis: We will explore whether participation in the STRIDE intervention is associated with an increase in quality of life (QOL) and medication-taking self-efficacy and a decrease in distress (anxiety and depression) at 12-weeks compared to the medication monitoring control, and whether these improvements are maintained at 24-week follow-up. We will also explore mediators of the intervention such as coping skills or beliefs about medicine, and demographic and treatment-related moderators of the intervention.

   b. To examine reasons for deciding not to participate in this social behavioral trial.

   Exploratory Hypothesis: In efforts to inform future studies and gain insight into barriers to participate in this study, we will examine participant reasons for choosing not to participate. It is hypothesized that participants approached about the study who choose not to participate will do so for a variety of reasons, such as time constraints.

2.0 Background

Female breast cancer is the most commonly diagnosed cancer in the U.S.; 1 in 8 women (12%) will develop breast cancer in her lifetime.[14] Approximately 60-75% of breast malignancies are hormone sensitive (i.e.,

hormone receptor-positive)[15] and are treated with AET, a critical component of prevention in patients with early-stage breast cancer.[16] AET (tamoxifen or an aromatase inhibitor) significantly improves outcomes for early-stage, hormone-receptor positive BCS.[15] A meta-analysis showed that breast cancer recurrence and mortality were reduced by approximately 50% and 30%, respectively, with tamoxifen.[17] However, despite overwhelming clinical benefits, half of women are non-adherent within five years of initiating AET.[18] A systematic review showed that adherence to tamoxifen and AIs ranged from 41-88%, and 50-91%, respectively.[19] Strikingly, adherence declines continuously each year following therapy initiation.[20]

Poor adherence to AET is detrimental for BCS. Non-adherence in women with early-stage breast cancer is associated with increased breast cancer recurrence,[21] breast cancer mortality,[22] and overall mortality.[23] Non-adherence is also associated with increased physician visits, higher hospitalization rates, longer hospital stays,[24] and poor patient-provider relationships.[11] While women with hormone receptor-positive breast cancer were previously prescribed five years of AET, recent studies showed that continued therapy up to 10 years further reduces risk of recurrence and mortality.[25] With this new evidence, the American Society of Clinical Oncology (ASCO) now recommends 10 years of AET for many BCS.[15] This prolonged administration will likely compound existing adherence problems and highlights the critical need for patient-centered interventions to address adherence challenges for BCS.

Surprisingly, few intervention trials have addressed AET adherence in BCS. These interventions did not target well-established factors that influence AET adherence and generally did not improve adherence.[10,26-28] Given the dearth of interventions to target AET adherence, women are not receiving the support needed to optimize breast cancer outcomes. Tailored interventions are warranted that address modifiable predictors of non-adherence. These predictors include patient, disease, treatment, and provider/healthcare system factors (see Figure 1 in previous section). Patient-related factors are the most significant correlates of non-adherence and include perceptions of low recurrence risk,[29] necessity for AET,[30] and low self-efficacy in taking medication.[29] Patient sociodemographic factors include age,[20] out-of-pocket medication costs,[31] financial distress,[29] and health literacy.[32] Disease factors include having a recurrent cancer or a larger invasive ductal carcinoma.[33] On the treatment level, AET-related side effects (e.g, joint pain, hot flashes, sleep difficulties, cognitive symptoms) negatively influence adherence.[34] With regard to provider/healthcare system factors, suboptimal patient-physician communication is associated with worse adherence to AET.[29] In order to improve adherence, interventions must address several of these modifiable factors.

Additionally, depression and anxiety are significant risk factors for treatment non-adherence.[35] BCS commonly experience distress following treatment, with approximately 33% reporting depressive symptoms[36] and 18% reporting anxiety.[37] Significant AET-related side effects and toxicities such as joint pain, hot flashes, fatigue, and sexual dysfunction often underlie the emotional distress reported by BCS.[34] Importantly, BCS who report negative emotions related to AET and distress related to side effects are less likely to be adherent.[29] A recent meta-analysis concluded that management of depression may enhance adherence to AET and improve cancer outcomes.[38] Thus, it is imperative that an evidence-based intervention addresses each individual's depressive or anxiety symptoms and the potential sources of distress such as AET-related side effects and side effect-related interference with daily functioning.

With regard to intervention development, ASCO guidelines advocate for an approach that meets the psychosocial needs of patients based on the severity of their symptoms.[39] In addition, interventions should be efficient and accessible given that BCS are re-entering their lives post-treatment and struggling with ongoing challenges.[40] To address this timely public health concern, we propose to develop and test a theoretically and empirically informed, videoconference, tailored intervention to enhance AET adherence, improve symptom management, and reduce distress for BCS. The intervention will be referred to as STRIDE: **S**ymptom-**T**argeted **R**andomized **I**ntervention for **D**istress and Adherence to Adjuvant **E**ndocrine Therapy among Breast Cancer Survivors.

In this study, early-stage, hormone receptor-positive BCS with distress related to AET, adherence difficulties, or side effects, will be offered participation. The STRIDE intervention will include cognitive-behavioral strategies for adherence, distress, and symptom management with adaptations from *CBT for Adherence and Depression*,[41]

which is shown to improve adherence via integration of adherence counseling and skills-based treatment for co-occurring psychiatric symptoms.[41] To minimize burden and increase access, we propose to deliver the STRIDE intervention via ZOOM™ software. ZOOM is a HIPAA-secure Massachusetts General Hospital (MGH)-approved skype-like modality that will be used in psychiatry department for group virtual visits. Following semi-structured interviews and intervention development (completed Phase 1), we will test acceptability in a run-in phase and feasibility in a pilot RCT with guidance from mentors and advisors. Findings will inform future research and the planning and implementation of a full-scale efficacy trial. In the long-term, results may have implications for breast cancer survivorship care plans and the provision of efficient support for BCS on AET. Ultimately, improved adherence may optimize disease-related outcomes for BCS.

Preliminary Studies

Cognitive-behavioral interventions can lower depressive symptoms and cancer-specific distress in breast cancer. Based on findings that a 10-week Cognitive Behavioral Stress Management (CBSM) intervention combining CBT and relaxation training is beneficial during treatment for early-stage breast cancer,[42,43] I studied the long-term effects of CBSM.[44,45] At five-year follow-up, BCS (N=130) who received CBSM post-surgery reported fewer depressive symptoms than the control group (p=.030). At the 11-year follow-up (N=100), participation in the CBSM group was associated with better quality of life (p=.040) and fewer depressive symptoms (p=.030).[45] My colleagues and I studied the differential benefits of a brief, five-week CBT intervention compared to a five-week relaxation training intervention and an attention-matched control group during treatment for early-stage breast cancer.[46] Women with breast cancer in the CBT intervention reported less cancer-specific distress compared to the attention control (p=.004). Our findings show that cognitive-behavioral interventions are beneficial for reducing cancer-specific distress during breast cancer treatment and may improve distress symptoms for BCS in the short- and long-term.

Psychiatric symptoms are highly prevalent in BCS prescribed AET. Of the 240 women who participated in the CBSM study, 67% were prescribed AET. One-year post-surgery, 27.6% of these women reported elevated depressive symptoms, and 37.0% reported elevated anxiety. These findings are comparable to population rates, highlighting the need to mitigate distress in BCS taking AET. Furthermore, preliminary data from our ongoing studies in the Cancer Outcomes Research Program, co-directed by Dr. Jennifer Temel and Dr. Joseph Greer, suggest that the proportion of MGH patients with breast cancer and depression and/or anxiety is congruent with published estimates of up to 33% of BCS reporting anxiety or depressive symptoms.[73,74] Specifically, in a current Patient-Centered Outcomes Research Institute-funded study (PI: Greer) to improve adherence and symptom management in patients with cancer prescribed oral chemotherapy, 27% of women with breast cancer at MGH reported clinically elevated levels of anxiety, and 12% reported clinically elevated levels of depression on the Hospital Anxiety and Depression Scale. After completion of active treatment, these women will become eligible for participation in the proposed study. Furthermore, in a survivorship needs assessment survey completed by 130 MGH BCS (PI: Dr. Jeffrey Peppercorn and Dr. Elyse Park), 46% of women reported experiencing anxiety symptoms "sometimes," and 22% reported experiencing anxiety symptoms "most of the time" or "always". In addition, 35% of MGH BCS reported experiencing sadness "sometimes," and 9% experienced sadness "most of the time" or "always." Of these MGH BCS who were prescribed AET, 57% reported experiencing anxiety symptoms "sometimes," 22% reported experiencing anxiety symptoms "most of the time" or "always," 51% reported experiencing depressive symptoms "sometimes", and 5% reported depressive symptoms "most of the time" or "always."

Systematic review finds few interventions for AET adherence. I collaborated with Dr. Joseph Greer to publish a systematic review of adherence to oral cancer therapy,[12] which identified three of the RCTs with interventions to improve adherence to AET in early-stage breast cancer. Interventions were atheoretical and not efficacious.[10,26,27] Conclusions underscore the need for theoretically- and evidence-based interventions targeting AET adherence in BCS.

Qualitative interviews with BCS emphasize need and directly informed STRIDE intervention for symptom management, adherence, and distress. The tailored, evidence-based STRIDE intervention to be tested through this protocol is directly informed by a qualitative study phase involving semi-structured interviews with BCS at the MGH Center for Breast Cancer (DF/HCC Protocol #17-201). Between 11/2017-11/2018, 36 interviews were conducted to explore experiences of BCS taking AET. BCS were recruited to reflect a representative sample of women who may benefit most from such an intervention. Twenty interviews were conducted with BCS with low adherence to AET, 10 interviews were conducted with BCS with high adherence to AET yet moderate to severe side effect burden, and 6 interviews were conducted with BCS who had been prescribed AET within the past four weeks. Additionally, 30% of BCS (n=9) who completed interviews indicated high levels of distress (as determined by a score of ≥8 on the PHQ-9 and ≥10 on the GAD-7). We gathered feedback related to (1) experiences with and perceptions of AET (including side effects, adherence, and distress), (2) interest in a supportive, psychosocial intervention; (3) applicability of intervention content; (4) intervention length, timing, and delivery; and (5) anticipated challenges to participation. After interviews were complete, we created a thematic coding framework to analyze these qualitative data and made modifications to the STRIDE intervention based on results. Ultimately, qualitative findings indicate that BCS need and desire a supportive intervention for taking AET. While the initial primary focus was on adherence, we added foci of symptom management and distress to ensure patient-centeredness based on BCS reported experiences. In addition, while we originally planned a stepped-care intervention in the proposed grant with flexibility to modify this based on this qualitative phase, it became apparent that this model would not adequately support the needs of these women and we revised it to be a brief intervention for all women with distress related to AET, adherence, or symptoms/side effects. Taking preferences into account, the STRIDE intervention was modified to be group-based with the option of individual sessions. We retained videoconference delivery with an option for in-person sessions at the preference of the participant. We shortened the sessions from the originally planned 8-11 to a total of five weekly 60-minute sessions with two follow-up phone check-ins. We also shortened the overall study length from eight months to six months. Feedback was also solicited from clinicians and experts as planned, including Drs. Joseph Greer (primary mentor and expert in intervention development), Jennifer Temel (secondary mentor and expert in cancer outcomes research), Steven Safren (advisor with adherence expertise), Ann Partridge and Jeff Peppercorn (breast oncologists with expertise in adherence to AET and survivorship), and Elyse Park (expert in qualitative methodology). A review of the STRIDE intervention was also conducted with oncology clinicians and nurse practitioners that work directly with this BCS population. Following our 5-person run-in phase, we finalized the intervention by incorporating participant feedback. The intervention is now a 6-session, group-based, virtual intervention with two follow-up phone check-ins. Finally, breast cancer survivors who participated in the STRIDE program and self-identified as part of a minority racial/ethnic population (e.g. Black, Asian, Latinx, etc.) will be offered the opportunity to participate in an exit interview provide feedback. Previous studies (e.g. #17-201) have successfully administered exit interviews to modify and improve patient-centered interventional programs utilizing participant feedback. This interview will lake approximately 15 minutes. Our goal is to understand areas of our current program that could be more relevant to breast cancer survivors who are part of racial/ethnic minority populations, as interventions to improve AET adherence should be culturally sensitive.

Summary. Taken together, these studies highlight (a) the need for development and testing of interventions based on theory and evidence to enhance adherence to AET, improve symptom management, and reduce distress for BCS; (b) the ongoing high levels of distress reported by BCS on AET regimens; and (c) the potential for a cognitive behavioral intervention to be a promising modality for addressing distress in BCS. With the knowledge from my prior work and qualitative phase of this mixed-methods study, the proposed research aims to test the feasibility and acceptability of the STRIDE intervention compared to a medication monitoring control.

3.0 Inclusion and Exclusion Criteria

3.1 *Screening Procedures*

Study staff will recruit BCS from the MGH Center for Breast Cancer. Study staff will screen BCS' electronic health records (EHR) for demographic and clinical eligibility criteria and request permission from the oncology clinician to approach patients at clinic appointments (HIPAA waiver detailing EHR access has been submitted to DF/HCC IRB). Specifically, study staff will email the cancer care team (i.e., oncologist, nurse practitioner) to inquire if they have any reservations about the study team approaching the patient for study participation at the next scheduled clinic visit. Clinicians will be sent an email containing the patient's name, EHR number, and date of her appointment (Appendix 30.1). This email will include an informative handout for clinicians to familiarize themselves with study aims and relevant procedures to assist in informing their decision on granting permission for study staff to approach a patient (Appendix 30.2). If a clinician does not respond to the email soliciting reservations about approaching the patient, study staff will approach the provider in-person to request approach permission. If study staff are unable to approach a potentially eligible patient in-clinic, study staff will attach a study flyer to the patient's chart for them to receive at the visit, and thus initiate a passive introduction to the study. To ensure providers are aware of study staff intent to re-approach the patient at a later date, study staff will send the clinician and additional email prior to any future patient approach. If any aspect of patient eligibility or ineligibility is unclear from patient screening, trained study staff will communicate with oncology clinicians verbally or via email to clarify the eligibility status of a patient. Additionally, if not found in the EHR, study staff may clarify the Eastern Cooperative Oncology Group (ECOG) performance status score with the patient using the brief questionnaire in Appendix 30.27. Study staff will finalize assessment of patient eligibility upon approach, as detailed in Section 5.0 of this protocol.

3.2 Inclusion & Exclusion Criteria

Eligibility criteria (Table 1) will maximize homogeneity, reflect study focus, enhance rigor, and consider limitations. The intervention targets adherence barriers identified in women, as male BCS face different challenges.[47] While patients with metastatic cancer are also treated with endocrine therapy, there are different facilitators and barriers to adherence with incurable disease. Therefore, the focus on early-stage BCS preserves the intervention scope. BCS with Ductal Carcinoma In Situ (DCIS) or Lobular Carcinoma In Situ (LCIS) will be eligible as they experience distress related to breast cancer and adherence challenges to AET as well. The recruitment window of 1 week to 36 months maximizes the likelihood that women have initiated AET and aims to improve adherence in the initial years that are most clinically beneficial.[17] Up to 105 women will be enrolled to ensure that at least 4-5 participants complete the run-in period and that at least 60 participants will complete study participation. Participants who self-identify as part of a minority racial/ethnic population will be offered the opportunity to participate in a qualitative, semi-structured exit interview to explore patient feedback on the cultural awareness relevance of the STRIDE study, regardless of randomization. This interview will last approximately 15 minutes.

3.3 Special Populations

No special populations, including adults unable to consent, individuals who are not yet adults, pregnant women, or prisoners, will not be included in this study.

Table 1. **Inclusion Criteria**
1. Female
2. Age 21 or older
3. Diagnosis of early-stage (Stage 0-IIIb), hormone receptor + breast cancer

4.Within 1 week-36 months of starting adjuvant endocrine therapy
5. Ability to read and respond in English
6. Eastern Cooperative Oncology Group (ECOG) performance status ≤ 2
7. Currently taking adjuvant endocrine therapy (i.e. if took recent break, has taken within the past 2 weeks)
8. Completed primary treatment (i.e., chemotherapy, surgery, and/or radiation) for early-stage breast cancer
9. Indicates a score ≥4 on one of the three NCCN adapted distress thermometer study screening questions
Exclusion criteria 1. Uncontrolled psychosis, active suicidal ideation, or psychiatric hospitalization within the past year 2. Cognitive impairment that prohibits participation in the study 3. Enrollment in a different clinical trial for breast cancer 4. Current participation in formal group psychotherapy or other psychosocial intervention trial 5. Undergoing primary treatment for other cancer (i.e., advanced stage cancer)

4.0 Study-Wide Number of Subjects

We propose a four-center run-in period (n=5) and randomized-controlled trial (n=100) of an evidence-based telehealth intervention for a total of 105 BCS taking AET. Our original accrual goal for the RCT was 75, but due to successful enrollment and additional time for conducting the study, we decided to expand accrual to 100 in order to increase our ability to detect group differences in secondary outcomes.

5.0 Study-Wide Recruitment Methods

5.1 Recruitment and Enrollment Procedures

The following recruitment procedures will be executed by the lead site, MGH Boston, at all MGH-affiliate study sites. The three MGH-affiliate sites will not have any responsibilities regarding recruitment or enrollment. All study sites will be open through the DF/HCC IRB as the IRB of record.

Participants will be recruited through the following three methods:

- EHR Screening: As detailed above (Section 3.1), study staff will screen the MGH Center for Breast Cancer clinic schedules at the MGH Boston, MGH Northshore, MGH Waltham, and Newton-Wellesley satellite site for potentially eligible patients (under the use of a HIPAA waiver, submitted to the DF/HCC IRB). If a study staff member is attempting to recruit a potentially eligible patient through an affiliate site, they will utilize the study screening and telephone scripts (Appendices 30.3 & 30.4)
- The Partners Rally Recruitment Portal: Study staff will submit a recruitment advertisement to the Partners Rally Recruitment Portal (advertisement detailed in Appendix 30.5). Through this portal, interested and potentially eligible patients will be able to send their contact information to the study team. The study team will then reach out to interested patients and use the study screening and telephones scripts to assess fit and eligibly for the study (Appendices 30.3 & 30.4).
- Provider & Self-Referral: Patients may be referred to contact the study staff by receiving a study flyer (Appendix 30.6), seeing a study flyer posted in-clinic, or by hearing about the study by an oncology provider. Study site-PIs may also consent patients for the study. If a patient reaches out to the study staff, the study team will use the study screening and telephones scripts to assess fit and eligibly for the study (Appendices 30.3 & 30.4).

For patients meeting initial eligibility criteria and with clinician approval, trained study staff will approach the patient at their clinic visit to explain the study and conduct the informed

consent discussion. Study staff will use Appendix 30.1 to notify the patient's clinician of the intended approach. The study staff will initially introduce the study to patients and ask if they are currently taking their AET. If the patient indicates that they are not interested in the study, study staff will collect the reason for refusal, for the purposes of documentation and future study reporting. If the patient indicates that they are interested in the study and are currently taking their AET, the study staff will screen the potentially eligible patient using the study staff screening script (Appendix 30.3). The brief screening questions are intended to assess the fit of the patient for the study. The participant will screen in to the study if she indicates an answer of 4 or above on any of the three brief screening questions. If a patient screens out of the study, study staff may ask the patient for permission to re-approach her some point in the future, as distress and adherence challenges may come and go at different points throughout the course of the medication. If the patient screens in, she will be presented with a detailed, HIPAA-compliant consent form to be signed by each participant following explanations by study staff. The consent form will include all of the study procedures, information about potential risks and benefits of participation, and information regarding who they can contact for further questions (PI: Jacobs). It also will state that participation is voluntary, participants can refuse to answer any questions, participants can withdraw from the study at any time, and study participation is in no way related to their medical care. If a participant is unable to be approached in-person or consented in-clinic due to external factors, such as lack of clinic space or patient time constraints, the study team may reach out to potential participants over the phone. Prior to initiating phone contact, the study team will utilize the same provider email to assess if the provider has any reservations about the study staff contacting the patient (Appendix 30.1). If the patient does not have an upcoming appointment in clinic, study staff may call the potentially eligible patient using the recruitment phone script and screening script to gauge interest and eligibility (Appendices 30.3 & 30.4). Study staff will not call more than three times total or leave more than two voice messages (Appendix 30.7). If the patient expresses interest and screens in, the study team will begin the electronic informed consent (EIC) process outlined in Section 27.0.

5.2 Participant Communication

Study staff will ask for preferred participant communication methods upon time of approach. Participants will fill out the Participant Locator Form (Appendix 30.12) to indicate best contact and backup contacts. Potential communication includes in-person, by phone, email, or SMS Text Messaging. Phone and email communication have been successful strategies to communicate with patients in prior psychosocial studies, and email templates intended for study use can be found in Appendix 30.14.

SMS Messaging. Participants may elect to provide a personal mobile phone number and provide permission to receive SMS messages via an online service (GoogleVoice) regarding the study that the study staff will monitor. Before doing so, participants will be informed of the limitations of using GoogleVoice, particularly emphasizing that it is not HIPAA-compliant and thus does not offer protection over their personal health information. Additionally, participants will be informed that this phone number is not monitored regularly and should not be used for urgent or emergency purposes. Participants will be advised that, in the case of an emergency, they should contact their care team or emergency services. In the event participants still prefer the use of text messaging, study staff will send brief messages containing limited information regarding scheduling, reminders, and follow-up. Participants will be provided with the number for SMS study-related communications. Study staff will follow the templates as outlined in Appendix 30.13 for SMS communication. Under the discretion of trained study staff and extenuating circumstances, study staff may stray from the following templates to address scheduling/reminder situations not covered by the message templates. Under no circumstances

will study staff ever screen or discuss personal medical history, exchange personal health information, or other sensitive information via SMS message. If a participant introduces sensitive information, including but not limited to the examples just listed, into a SMS message conversation, the study staff member will direct the participant to call them to discuss it further over the phone.

Send Secure Email. Participants will be provided with the Partners Privacy language regarding encrypted emails and given the opportunity to opt-out of Send Secure emails. In previous psychosocial studies, participants have articulated difficulties with accessing encrypted emails and prefer the option to opt-out of such method of encrypted communication. Further procedures on this opt-out process can be found in Section 27.0 on Electronic Informed Consent.

6.0 Multi-Site Research

6.1 Multi-Site Study Conduct

This study will be conducted at MGH Boston, lead site, and at three MGH satellite sites, Newton-Wellesley Hospital, MGH North Shore, and MGH Waltham. All affiliate sites are on record by the DF/HCC IRB. As detailed in Section 5.0, the study staff at MGH Boston will maintain full responsibility of recruitment and enrollment at MGH Boston and at the MGH-affiliate sites. The MGH Boston study team will communicate with providers at Newton-Wellesley Hospital, MGH North Shore, and MGH Waltham regarding permission to approach patients over the phone, as detailed in section 3.0, and on the progress of the study or any protocol updates. Site-PIs and peripheral study staff at the satellite site may assist with referrals but that is the extent of their role in study conduct. All participants will be registered and enrolled on OnCore through MGH Boston, regardless of where a participant's primary oncologist is located. All participants will complete the intervention and all study procedures through study staff at MGH Boston. A HIPAA waiver was submitted to the DF/HCC and authorization approved for all sites to which the study is open.

6.2 Multi-Site Communication

Study staff at the lead site will periodically communicate via phone or email with the satellite site to update sites on study progress or any modifications to study protocol.

6.3 Multi-Site Confidentiality

All study data will be stored and maintained by study staff at the lead study site, MGH Boston. There will be no transmission of study data (e.g., study assessments, exit interview transcripts) from MGH-affiliate sites to MGH Boston. As detailed above, MGH Boston study staff will be responsible for all recruitment and enrollment, including the completion and storage of all participant and study data. This study does not involve any collection of participant specimens.

6.4 Institution Change of Previous Study Member

Emily Walsh is a predoctoral psychology trainee in the University of Miami Department of Psychology. Ms. Walsh was previously engaged in this research study as the primary clinical research coordinator of the study (e.g., recruitment, enrollment, and completion of participant study interviews) from September 2017 to June 2019, at which time she moved to the University of Miami. Dr. Jamie Jacobs will assume PI duties at the MGH Cancer Center while Ms. Walsh's role will be to conduct research activities (data interpretations and discussions) at the University of Miami. Ms. Walsh's research activities will also be monitored by Dr. Michael Antoni, a PI and faculty member at the University of Miami. All data activities will be completed with deidentified participant transcripts for qualitative analysis under the

direct supervision of Dr. Jacobs and Dr. Antoni and will be for use only by Ms. Walsh under Dr. Antoni's supervision at the University of Miami.

7.0 Study Timelines

Table 2 depicts the expected overall study timeline:

Time Point	Study Procedure
Months 0-6	• Finalize and submit Institutional Review Board application for approval • Train study staff in study procedures, recruitment, and data collection • Conduct run-in period (n=5) to refine study procedures and intervention
Months 7-33	• Enroll and randomly assign up to 100 patients to receive either the STRIDE intervention vs. the medication monitoring plus standard care control • Weekly-meetings of study staff to review study progress and address any study issues
Months 34-36	• Complete data analysis and submit manuscripts • Prepare and submit grant proposal for large-scale randomized trial

Each subject will be enrolled for approximately 24 weeks total.

8.0 Study Endpoints*

8.1 Primary Endpoint:

The primary endpoint is feasibility and acceptability as measured by participant rates of enrollment (>50%), participant retention (>70%), intervention attendance (>70% attending at least 4 of 6 sessions), and intervention satisfaction (>75% reporting average satisfaction greater than the scale's midpoint).

8.2 Secondary Endpoints:

The secondary endpoints of the study are as follows:

- Changes in adherence between groups on objective MEMS Caps and self-report MARS-5* at 12-weeks and 24-weeks post-baseline (changes in MEMS Caps adherence will be compared across the entire 24-week period).
- Changes in self-reported satisfaction with AET on the CTSQ* between groups at 12-week and 24-weeks post-baseline.
- Changes in self-reported symptom distress on the BCPT* between groups at 12-week and 24-weeks post-baseline.

  Secondary endpoints will also be examined using social support (MSPSS*) and demographic and treatment-related factors (e.g., age, stage, time since AET initiation) as potential covariates.

8.3 Exploratory Endpoints:

- Changes in distress levels (HADS*), quality of life (FACT-B*), and medication self-efficacy (SEAMS*) between groups at 10- and 24-weeks post-baseline, as well as potential mediation of secondary and exploratory endpoints through changes in beliefs about adjuvant endocrine therapy (BMQ-AET*), self-efficacy for managing AET symptoms (Self-Efficacy For Symptoms) and/or perceived coping skills (MOCS*). Potential demographic or treatment related moderators will also be explored (e.g., age, type of AET medication, cognitive functioning [PROMIS*]).

*All study instruments are explained in full in Section 9.3.

9.0 Procedures Involved*

9.1 Study Design

This is a multi-site randomized control trial of a tailored, telehealth intervention (STRIDE) versus standard care plus medication monitoring in up to 105 BCS taking AET (run-in period, n=5; RCT, n=100). To ensure balanced representation between the two study groups, we will stratify randomization by participant level of distress (high vs. low), determined by HADS administered at baseline (Appendix 30.8). A participant will be considered high distress if they answer with a score of ≥ 8 on the HADS. Furthermore, participants who self-identify as part of a minority identifying racial/ethnic group will be offered the opportunity to participate in a qualitative exit interview to gather patient feedback on the study's cultural awareness and relevance. This interview will take approximately 15 minutes.

9.2 The STRIDE Intervention

Run-in Period. We will recruit up to 5 early-stage, hormone receptor-positive BCS who meet eligibility criteria to participate in the run-in period of the study, an approach to ensure smooth operation of study procedures.[48,49] These participants will complete the entire intervention through the 3-month assessment (see Protocol Schema prior to Table of Contents). Participants will complete acceptability ratings of ease and usefulness (0-10 scale) at each session (Appendix 30.9). Participants will complete an additional STRIDE acceptability measure (including the CSQ) about their experience in the program as a whole after they complete the intervention (Appendix 30.18). At the 3-month assessment, we will conduct individual, semi-structured exit interviews to solicit feedback about the intervention, study procedures, and the assessment battery and ensure acceptability (Appendix 30.10).[50] Qualitative data will be recorded, transcribed, and thematically analyzed. Results will inform modifications such as refinement of the intervention, assessment battery, and study methods for feasibility testing in a pilot RCT. Any revisions made at that time to the intervention content or assessment battery will be re-submitted as amendments to the protocol and IRB approval will be obtained prior to beginning of the RCT.

STRIDE Intervention. The intervention content is included in Appendix 30.11. STRIDE is a brief, group-based, videoconference intervention with six weekly one-hour sessions and two follow-up 15-30-minute phone check-ins at month four and five. The STRIDE intervention incorporates aspects of *CBT for Adherence and Depression,*[41] employing symptom management, cognitive restructuring, behavioral activation, and skills-based methods to address adherence and psychiatric symptoms. The first three sessions entail an assessment of patient, treatment, and healthcare system/provider barriers to adherence, followed by psychoeducation about breast cancer risk and benefits and risks of AET. We will employ specific interventions to target patient-identified barriers. For example, cognitive reframes will be applied to optimize accuracy related to recurrence risk perception and clinical necessity for therapy. Problem-solving will be implemented for management of financial distress (e.g., develop plan with social work and oncology team). To target healthcare system/provider barriers, the protocol will teach assertiveness skills for adopting an active role with clinicians and increasing self-efficacy. The last three tailored sessions will target treatment factors; patients will receive training in symptom management and coping strategies specific to the side effects or symptoms that they endorse. CBT is effective in helping patients manage cancer-related side effects such as pain, fatigue, and menopausal symptoms such as hot flashes. CBT strategies will address individual sources of distress, such as difficulty managing symptoms, or financial concerns around medication cost that are interfering with adherence and exacerbating distress. In extenuating circumstances, participants may be scheduled for individual sessions if we cannot schedule them for a group session within a reasonable amount of time.

Participants in the STRIDE intervention will continue to monitor medication-taking with the MEMS Caps throughout the 24-week study period. As part of the intervention, participants will practice relaxation training using study recordings through the study's website portal

(stridestudy.mgh.harvard.edu). The structure of each website post can be viewed in Appendix 30.25. The website will move into production after IRB approval. This is a website created with the support of IT at MGH/HMS and is viewable to those with the link to the website URL. The website will contain no advertisements or other content. It will only contain the relaxation file, and the individual sessions from the work book that the intervention participants receive, so that they can also have an electronic version accessible for the future. Study staff will provide instructions for participants to access this website via email as part of the intervention session reminders (Appendix 30.14). In addition to the overall study PI, Dr. Jacobs, trained clinical psychology practicum students, clinical psychology fellows, licensed psychologists or social workers on the study team at MGH will deliver the intervention, to ensure successful administration of the intervention. Interventionists will complete a post-intervention survey for each group intervention, which will document process variables such as session length, session interventionist, and session attendance. Dr. Jacobs has ample experience delivering this type of intervention and was a protocol therapist on several NIH-funded CBT-based studies. She will conduct weekly clinical supervision with trained interventionists. 80% of sessions will be audio-recorded and at least 10% randomly selected, stratified by interventionist, and reviewed with Dr. Greer for treatment fidelity. Content fidelity will be assessed by calculating the percentage of key intervention topics addressed out of total topics, with a goal of 90%.[51] Feedback will be given to interventionists to enhance adherence to the protocol.

Finally, participants who identify as part of a racial/ethnic minority population will be offered the opportunity to participate in a qualitative exit interview to provide feedback on the STRIDE program.

Medication Monitoring Control. Participants in the comparison condition will not receive the STRIDE intervention; however, they will monitor medication-taking with MEMS Caps and undergo standard care with oncology follow-up.
Rationale: Although we considered an attention-matched condition to control for nonspecific intervention effects, we decided against this approach because medication monitoring is likely to improve adherence alone.[52] Additionally, requesting participation in a placebo intervention adds undue burden to BCS who are coping with emotional and physical sequelae. Finally, an attention control should only be employed if attention would affect the primary outcome. Since no data suggest that attention would improve AET adherence, an attention control would be an added expense and unethical.[52] Finally, participants who identify as part of a racial/ethnic minority population will be offered the opportunity to participate in a qualitative exit interview to provide feedback on the STRIDE study.

Retention. Strategies to promote retention will include accurate explanations of study expectations during the recruitment process,[53] collection of locator information and a secondary contact (Appendix 3.12), a phone check-in to ensure use of MEMS Caps, branding of study materials for project identity, and reimbursement for time ($20/assessment). Intervention participants will receive a text reminder one day prior to the scheduled ZOOM session (See Section 5.2 detailing Participant Communication).

9.3 Study Instruments

The following questionnaires have been specifically selected to reflect the theoretical intervention targets and aims of the study. All participants will complete the baseline questionnaires within four weeks of documented informed consent. If a participant does not complete the baseline questionnaires within this timeframe, she will be re-screened and re-consented, restarting the four-week window. Follow-up assessments will be completed at 12-week (+/- 2 weeks) and 24-week (+/- 2 weeks) from time of baseline completion (Appendix 30.16) Table 3 details the schedule for administering all study instruments. Patient assessments can be found in Appendix 30.16. We anticipate that 15-20% of 12-week assessments will be out

of window for intervention participants, given the occasional delay of coordinating multiple patients' schedules to arrange the intervention groups.

Instrument/Measure:	**Screening**	**Baseline (4-week window from consent)**	12-week **s post-baseline (+/- 2-week window)**	***24-weeks post-baseline (+/- 2-week window)**
Chart review	X			
Adapted NCCN Distress Thermometer	X			
Medication Event Monitoring System (MEMS Caps)		To be used throughout the 24-week study period		
Demographics		X		
Medication Adherence Report Scale (MARS-5)		X	X	X
Breast Cancer Prevention Trial Symptom Checklist (BCPT)		X	X	X
Cancer Therapy Satisfaction Questionnaire (CTSQ)		X	X	X
Hospital Anxiety and Depression Scale (HADS)		X	X	X
Functional Assessment of Cancer Therapy (FACT-B)		X	X	X
Measure of Current Status (MOCS)		X	X	X
Beliefs About Medications Questionnaire – Adjuvant Endocrine Therapy (BMQ-AET)		X	X	X
Multidimensional Scale of Perceived Social Support (MSPSS)		X	X	X
Self-Efficacy in Appropriate Medication Use Scale (SEAMS)		X	X	X
Self-Efficacy For Managing Symptoms and Taking AET Questionnaire (Self-Efficacy For Symptoms)		X	X	X
Patient-Reported Outcomes Measurement Information System (PROMIS) – Cognitive Function – Short Form 4a		X	X	X
Client Satisfaction Questionnaire (CSQ)**			X	
Supplemental Medication Diary	To serve as optional as-needed supplement to MEMS Caps (e.g., on vacation)			
Session Rating Form	To be administered during the run-in period after each intervention session			
Intervention Acceptability Form	To be administered during the run-in period at 3-months post-baseline			
Semi-structured Exit Interview	To be conducted during the run-in period at 3-months post-baseline			
Semi-structured Exit Interview	To be conducting during the RCT period after participants complete their participation in the STRIDE program.			
**Run-in participants will not complete a 24-week assessment* ***CSQ will be administered to intervention participants only*				

Screening:

Adapted National Comprehensive Cancer Network (NCCN) Distress Thermometer (Included as part of Study Screening Script in Appendix 30.3 and independently in Appendix 30.17): The NCCN Distress Thermometer is a valid, one-item measure for assessing distress in many cancer populations.[54] This

measure is scored on a range of 0 (no distress at all) to 10 (extremely distressed), and a score of 4 has been identified as an appropriate cut-off to measure significant distress.[55] This measure has been modified in this study for the purpose of screening BCS for distress related to taking AET, distress related to breast cancer symptoms/side effects, and distress related to adherence to AET. Participants who indicate a score of ≥ 4 on any of the three distress thermometers will be eligible for participation.

Secondary Outcomes:

Medication Event Monitoring System (MEMS Caps):[13] MEMS Caps will be used to electronically monitor AET daily dose and timing of dose administration. MEMS Caps are widely used in adherence monitoring including for patients with breast cancer.[34,56,57] Prescribed medication, dose, and timing will be identified in the Electronic Health Record and verified by the patient. Adherence will be calculated as the percentage of medication taken of the total prescribed. A total monthly and weekly adherence score will be calculated to examine changes over time.

Supplemental Medication Diary (Appendix 30.23): The Supplemental Medication Diary will be used per participant discretion alongside their use of the MEMS Caps. The diary will allow participants to document any instance in which they take their AET without opening the MEMS Cap. For example, a participant would document use in the diary if they took out two doses to be taken for the next two days, without opening their MEMS again.

Medication Adherence Report Scale (MARS-5): The MARS-5 assesses adherence to treatment and has been used specifically in the context of AET adherence. The scale consists of five items that ask about suboptimal adherence behaviors, such as "I stop taking my adjuvant endocrine therapy medicine for a while." Each item is answered on a scale of 1 (Always) to 5 (Never).[58]

Cancer Therapy Satisfaction Questionnaire (CTSQ): The Cancer Therapy Satisfaction Questionnaire (CTSQ) is a previously published 21-item measure that evaluates patients' beliefs about the following aspects of medical care: expectations of the effectiveness of cancer therapy, feelings about side effects, oral cancer therapy adherence, satisfaction with cancer therapy, stopping cancer therapy, and reasons for non-adherence.[59]

Breast Cancer Prevention Trial Symptom Scale (BCPT): The BCPT is a symptom checklist used to document physical and psychological symptoms associated with ET use.[60] The measure includes several clinically-relevant symptom subscales and has been used broadly in previous studies on symptom distress in breast cancer patients. The BCPT asks participants to rate how much they have been bothered by several symptoms over the past week on a scale of 0 (Not at all bothered) to 4 (Extremely bothered).

Exploratory Outcomes:

Hospital Anxiety and Depression Scale (HADS):[61] The HADS is a valid self-report measure for assessing anxiety and depressive symptoms among patients in non-psychiatric hospitals.[62] The 14-item measure contains seven questions to assess depressive symptoms and seven questions to assess anxiety symptoms to distinguish between the two. Patients indicate how they have been feeling on average over the past week. Each item is answered on a scale of 1 to 4. The four possible answer choices vary and adjust for each question.

Functional Assessment of Cancer Therapy-Breast Cancer (FACT-B): The FACT-B is a validated measure used to assess multidimensional quality of life in patients with breast cancer. The measure captures five domains: physical well-being, social/family well-being, emotional well-being, functional

well-being, and additional concerns. Each item is answered on a scale of 0 (not at all) to 5 (very much).[63]

Self-Efficacy for Appropriate Medication Use Scale (SEAMS):[64] The SEAMS will be used to measure patient self-efficacy in taking medication. The SEAMS was developed specifically for patients with chronic disease taking long-term medication.[64] Two factor structures are created: self-efficacy for taking medication under difficult circumstances and under changing circumstances. Each item is answered on a scale of 1 (not confident) to 3 (very confident).

Covariates:

EHR Factors: The following information will be collected from participant EHR: MGH Main vs. Affiliate site, health insurance type, breast cancer stage, treatment (e.g., surgery, chemotherapy, radiation), ET type, time since treatment completion, menopausal status, psychotropic medications, and medical or psychological co-morbidities.

Demographic Questionnaire: Participants will self-report their age, gender, race/ethnicity, marital status, education level, and relationship status.

Multidimensional Scale of Perceived Social Support (MSPSS):[65] The MSPSS is a validated, reliable scale used to capture levels of perceived social support. The scale consists of 12 items, such as "my family really tries to help me," and is measured on a 7-point Likert scale.

Potential Mediators

Beliefs about Medicines Questionnaire – Adjuvant Endocrine Therapy (BMQ-AET):[66] The BMQ-AET will be administered to assess beliefs about the need for AET. The BMQ-AET has been used in studies measuring endocrine therapy adherence.[67] This study will use one of the two scales, which is computed measuring perceived need for medication and concerns about disruptive medication effects.

Measure of Current Status (MOCS): The MOCS is a 13-item scale which measures patients' current self-perceived ability on several skills. Examples of targeted content areas are ability to relax, restructure maladaptive thoughts, and choose appropriate coping responses. Each of the 13 items is answered on a scale of 0 (I cannot do this at all) to 4 (I can do this extremely well).

Self-Efficacy For Managing Symptoms Questionnaire (Self-Efficacy For Symptoms):[68] The Self-Efficacy for Symptoms Questionnaire is a modified version of the self-efficacy scale to assess patient self-efficacy in managing symptoms related to their endocrine therapy medication. The measure asks patients to rate their confidence on a scale of 1 (not at all confident) to 10 (very confident) in their ability to decrease or control the side effects of their medication.

Potential Moderator

Patient-Reported Outcomes Measurement Information System (PROMIS) – Cognitive Function – Short Form 4a:[69] The PROMIS short-form measure will be used to assess patient-perceived changes in cognitive function.[70] The 4-item measure asks patients to response to each statement on a scale from 1 (very often) to 5 (never) over the past 7 days.

Intervention Acceptability:

Client Satisfaction Questionnaire (CSQ):[71] The CSQ is a 3-item, validated measure to assess satisfaction with services provided to the patient, and asks questions such as, "to what extent has our program met

your needs?" Each item is answered on a scale of 1-4. This will be administered at the 12-week assessment to evaluate intervention participants only to examine intervention acceptability.

Run-in participants only:

Session Rating Form (Appendix 30.9): This 5-item measure will be given to run-in participants to capture their thoughts and perceptions of the usefulness of each STRIDE intervention session. An example of a question is, "how enjoyable was today's session?" Each question will be answered on a scale of 1-10.

Intervention Acceptability Measure (30.17): This measure will be given to run-in participants only at the 10-week post-baseline question. The goal of this measure is to capture participant thoughts and experiences having gone through the STRIDE Intervention. An example of an item is "how satisfied are you with the number of sessions (5) that you received?" and is to be answered on a scale of 1 (quite dissatisfied) to 4 (very satisfied).

Semi-Structured Interview (Appendix 30.10): At the end of the run-in period, participants will complete a brief semi-structured interview to assess the STRIDE Intervention. This interview will be conducted with a study staff member not involved with the delivery of the intervention and will be used to inform and adapt the STRIDE Intervention for the RCT.

Semi-Structured Interview (Appendix 30.11): At the end of the RCT period, participants who identify as part of a racial/ethnic minority population will complete a brief semi-structured interview to assess the STRIDE Intervention. This interview will be conducted with a study staff member not involved with the delivery of the intervention and will be used to inform and adapt the STRIDE Intervention for the next phase of the study to increase its cultural awareness and relevance.

9.4 Data Collection

Participants will be given the option to complete the above instruments either on paper or over a secure REDCap portal. Study staff will send assessments to participants at the start of their timepoint window and will follow-up periodically throughout to ensure receipt and completion of assessments. Assessments that are completed on paper will be entered into the secure REDCap database by study staff.

Patients assigned to the intervention arm will additionally receive a copy of the Intervention Manual, a welcome letter with study expectations (Appendix 30.11), and a study timeline document (Appendix 30.15) to better their understanding of what time points to expect throughout the study.

Patients randomized to the usual care arm will follow standard care of Massachusetts General Hospital Cancer Center. They will also receive a study timeline document (Appendix 30.15).

10.0 Data and Specimen Banking: Not applicable

11.0 Data Management* and Confidentiality

11.1 Data Analysis

To determine feasibility in a pilot randomized controlled trial (N=100), estimate effect size, and finalize the intervention and study protocol to plan a full-scale, adequately powered efficacy trial.

Power calculation. The primary objective of this pilot study is to demonstrate feasibility, defined as (1) enrollment rate > 50%, (2) retention rate > 70%, and (3) attendance rate ≥ 70% (i.e. ≥ 70% of participants complete at least 4 of 6 sessions). At the time of the original protocol approval, we

estimated an accrual goal of 80 (75 in RCT and 5 in run-in phase) participants; therefore, the following power estimates are based on that number. We estimated that the enrollment rate will be 60%. If 134 patients are approached and 80 are enrolled, the lower limit for an exact, one-sided 95% confidence interval for the estimated enrollment rate will be 53%. Furthermore, we anticipate that the retention and attendance rates will both be 80%, and with 80 enrolled participants, the lower limit for an exact, one-sided 95% confidence interval for the retention and attendance rates will be 71%. Thus, based on our estimates of the feasibility parameters, the study will demonstrate feasibility of the adherence intervention. We have now expanded our accrual goal to 100 participants, which serves to only increase our power and rates of enrollment, retention, and attendance.

Primary Aim. To examine the feasibility and acceptability of a tailored, small-group, Telehealth intervention (STRIDE) compared to a medication monitoring control for survivors of breast cancer taking adjuvant endocrine therapy.

Hypothesis 1: The study will be feasible, defined by recruitment (enrollment rate > 50%), retention (completion rate of follow-up assessments > 70% of all participants who complete baseline) and attendance (attendance rate of at least 70% of participants completing at least 4 of 6 sessions [60%]).

Hypothesis 2: The study will be acceptable demonstrated by >75% of participants reporting average satisfaction scores greater than the scale's mid-point (Client Satisfaction Questionnaire).

Secondary Aim. To assess effects of the STRIDE intervention on adherence to AET, symptom distress, and satisfaction with AET.

Hypothesis 1. We hypothesize that participation in the STRIDE intervention will be associated with an increase in adherence and satisfaction with AET and a decrease in symptom distress at 12-weeks compared to the medication monitoring control, and that these improvements will maintain at 24-week follow-up.

Data will be assessed for patterns of missingness[72] and statistical assumptions. We will conduct mixed effects models with repeated measures data and relevant covariates such social support (MSPSS) and demographic and treatment-related factors (e.g., age, stage, time since AET initiation) as potential covariates. Longitudinal analyses will include all time points and a cross-sectional analysis for each time point. Given that this pilot is not powered to detect statistically significant group differences, we will examine mean differences and sample variability. Effect sizes (Cohen's d) will be calculated for changes in outcomes from baseline to four and eight months, as (Mean change score [intervention arm] – Mean change score [control arm])/SD pooled, where 0.3 indicates a small effect, 0.5 a medium effect, and 0.8 a large effect.[73] Effect sizes will be used in a power analysis to estimate the necessary sample size to conduct a full-scale efficacy trial with power >80%. We will also verify the needed sample size based on ability to detect a clinically meaningful difference and references to existing literature.[74]

<u>Exploratory Aim.</u> To assess the effects of the STRIDE intervention on several psychosocial constructs, exploring potential mediator and moderators of the intervention.

Exploratory Hypothesis: *We will explore whether participation in the STRIDE intervention is associated with an increase in QOL and medication-taking self-efficacy, and a decrease in distress (anxiety and depression at 12-weeks compared to the medication monitoring control, and whether these improvements are maintained at 24-week follow-up.*

We will use the same procedure to assess changes in secondary outcomes in the intervention group. We will explore potential mediation of secondary and exploratory endpoints through changes in beliefs about adjuvant endocrine therapy (BMQ-AET) and/or perceived coping skills (MOCS), as well as self-efficacy for managing symptoms (Self-Efficacy For Symptoms).

Potential demographic or treatment related moderators will also be explored (e.g., age, type of AET medication, cognitive functioning [PROMIS]). We will conduct moderated regressions to examine whether a group difference in adherence is moderated by age, social support (MSPSS), employment status, menopausal status, medication type, or other patient/treatment factors. We will explore alternative models using dichotomous outcomes over time.

Findings will inform the planning of an R01 to evaluate the efficacy of a videoconference, tailored intervention in improving ET adherence for BCS. If the current study is not found to be feasible or acceptable, we will have acquired valuable information to proceed in the identification of a patient-centered intervention for BCS. For example, feedback from the final assessment can be used to modify the intervention, such as the addition of a systems-based intervention component if findings show that low health literacy or cost barriers influence intervention effects. Differences in adherence, feasibility, or acceptability based on demographic or clinical characteristics can help determine which individuals may benefit. Ultimately, this project will contribute to the understanding of BCS' needs related to ET. Future studies based on these findings have the potential to influence survivorship care plans, and videoconferencing is a modality that can be widely disseminated. Improved adherence to ET may prevent recurrence and mortality, extending the lives of BCS.

11.2 Missing Data

The analyses for this study will focus on study completers to estimate the effect of the virtual, tailored intervention. The primary endpoint will be based on acceptability and feasibility aspects of the study. We will use the intention-to-treat principle for analyses with all randomized subjects. After we examine patterns of missingness, we will use maximum likelihood with multiple imputation to account for missing data.

12.0 Provisions to Monitor the Data to Ensure the Safety of Subjects

12.1 Data and Safety Monitoring Plan

The purpose of the data and safety monitoring plan is to establish standards that will ensure that this protocol complies with Federal Regulations, Health Insurance Portability and Accountability Act (HIPAA) requirements, and applicable Dana-Farber Harvard Cancer Center (DF/HCC) Standard Operating Procedures.

General Approach: We have developed a comprehensive data and safety monitoring plan for the proposed project. Throughout the award period, weekly meetings will take place with the research team: Jennifer Temel, MD and Joseph Greer, PhD, and study staff (clinical research coordinator [CRC] and interventionist). Specifically, meetings will include ongoing review of study protocol, assessment procedures, and issues related to recruitment, data collection, and management. Study staff will also discuss any human subject issues that arise.

General Roles and Responsibilities: We will use several coordinated strategies to monitor study recruitment, enrollment, and retention, as described in the following table. We will also closely track collection of patient-reported assessments, as these measures are an essential aspect of our study procedures and outcomes. For all strategies identified in the table, we will develop study tracking forms that will be reviewed at the weekly team meetings. Study tracking forms will be used to create a record of all decisions made and actions taken. I will send a report ahead of the meeting detailing study progress and setting the agenda. The following monitoring and reporting steps will be taken for each study activity:

Study Activity	Monitoring and Reporting Mechanism
Recruitment	• The designated CRC will generate a weekly report outlining the number of patients approached and reasons for ineligibility or

	disinterest in study participation
Informed Consent	• The CRC will generate a weekly report detailing the number of participants who signed informed consent. • The PI will go through any issues related to informed consent with the CRC weekly or earlier if urgent
Enrollment	• The CRC will generate a weekly enrollment report
Assessments	• The CRC will conduct a review for completeness and accurate data entry. • The CRC will conduct regular checks of MEMS Caps adherence data and contact patients once in the initial set-up to verify use of MEMS Caps. • The CRC will maintain participant records of distress levels at each timepoint and follow Reaction Management if required.
Intervention	• The CRC will contact patients to test the videoconferencing technology. • The PI and Dr. Greer (Study Co-Investigator, PI Co-Mentor) will review at least 10% of audio-recorded treatment sessions. • The CRC will maintain a record of participant progress in sessions, including attendance.
Retention	• The CRC will generate a weekly report detailing completion of follow-up assessments and retention strategies implemented for each participant. • The CRC will generate a weekly report of all participants who withdraw from study.
Analysis	• The PI will work closely with study biostatistician, Nora Horick (scientific advisor in biostatistics), on all qualitative and quantitative analyses.

Specific PI Roles and Responsibilities

I will be responsible for all aspects of conducting the protocol; I will:

- Oversee the coordination, development, submission, and approval of the protocol to the DF/HCC as well as subsequent amendments.
- Ensure that the investigators and study team members are qualified and appropriately resourced to conduct the protocol.
- Carry out a Data and Safety Monitoring Plan as detailed in this document.
- Ensure that each participating study team member receives adequate protocol training prior to enrolling participants and throughout the trial's conduct as needed.
- Monitor progress and overall conduct of the study.
- Conduct review of 10% of intervention sessions for process and content fidelity.
- Conduct weekly supervision for clinical protocol interventionists.
- Review data and maintain timely submission of data for study analysis.
- Ensure compliance with all requirements as set forth in the Code of Federal Regulations, DF/HCC, HIPAA requirements, and the approved protocol.
- Commit to provisions that the protocol will not be rewritten or modified by anyone other than the overall PI.
- Monitor accrual and address concerns if accrual goals are not met.

The Massachusetts General Hospital Cancer Center is expected to comply with all applicable federal regulations and requirements, the protocol and HIPAA requirements. Specifically, it will:

- Oversee the data collection process.

- Maintain documentation of Serious Adverse Events (SAE) reports and deviations/violations.
- Maintain regulatory documents which include but are not limited to the following: IRB approvals/notifications, confirmation of Federalwide Assurances (FWAs), all SAE submissions, screening logs, and IRB approved consents.
- Conduct regular communications with the PI and maintain documentation of relevant communications.
- Document the delegation of research specific activities to study personnel.
- Maintain regulatory files.
- Have office space, office equipment, and internet access that meet HIPAA standards.
- Participate in quality assurance activities and meet with monitors or auditors at the conclusion of a visit to review findings.
- Promptly provide follow-up and/or corrective action plans for any monitoring queries or audit findings.

Informed Consent Requirements. The DF/HCC approved informed consent document will serve as a template for the informed consent.

Protocol Confidentiality. All documents, investigative reports, or information relating to the participants are strictly confidential. Confidentiality is assured as participants will be identified on all study materials only by participant number, visit number, and date of visit. By recording the study data in this manner, the information can be considered 'de-identified,' and therefore compliant with the Standards for Privacy of Individually Identifiable Health Information ("Privacy Rule") of HIPAA. Participants data will be kept in a computer file that is password protected and this password will be changed whenever the staff changes. This password-protected file will be stored on the encrypted MGH network drive on hospital computers. Only the Principal Investigator and study staff will have access to the data. We will keep a link between participant number and participant's name in a separate file, also password protected (with a different password).

Data Management Organizational Structure Data. Study forms will undergo a systematic and rigorous editing process prior to being keyed into the database. The research assistant will routinely evaluate the data and discuss any problems and questions with the study staff, myself, and mentors at the regular weekly team meetings. Data management formal reports on record status across the three following domains will be employed: entered, verified, and edited. These reports of data records will be evaluated once a month during the final team meeting of the month. All study data (including data from the Electronic Health Record) will be stored on the encrypted MGH network drive on hospital computers and will be password protected. To ensure data protection, backup copies automatically generated by MGH computer systems will be available.

Data Safety and Monitoring Plan. The following procedures will be followed, in compliance with NIH requirements, to ensure the safety of study participants and the validity and integrity of data:

- Data Repository: The MGH Cancer Outcomes Research Program (CORe) has coordinated research initiatives over the past ten years that have established procedures and technologies for data collection and management. I will oversee all aspects of data collection for the study and the research assistant will have the operational responsibility of data management. We will develop a study specific data management protocol and standard operating procedures for the creation and testing of all study forms, data collection, quality control, and data extraction. These forms will be standardized. We will provide ongoing oversight of data management throughout the study, and will be responsible for generating reports and datasets for quality control and data analysis. All data management activities will utilize REDCap, a HIPAA-secure, web-based survey application for electronic collection and management of research and clinical trial data. REDCap data collection projects rely on a thorough study-specific data dictionary defined in an iterative self-documenting process by all members of the research team with planning assistance from Partners HealthCare Research Computing, Enterprise Research Infrastructure & Services (ERIS) group. REDCap provides an intuitive interface for users to enter data and have real

time validation rules (with automated data type and range checks) at the time of entry. Data management reports will be generated weekly and discussed during the study team meetings.

- Serious Adverse Events: Expedited review will occur for all events meeting the Food and Drug Administration (FDA) definition of a SAE (i.e., any fatal event, immediately life-threatening event, permanently or substantially disabling event, event requiring or prolonging inpatient hospitalization, Unanticipated Problems [UPs], or any congenital anomaly). This also includes any event that a study investigator judges to impose a significant hazard, contraindication, side effect, or precaution. For purposes of this study, all SAEs will be required to be reported to the PI, the DF/HCC IRB, and federal agencies (National Cancer Institute, FDA, and the NIH Office of Biotechnology Activities), regardless of any judgment of their relatedness to the study. All relevant information will be reported to the study investigators for each SAE including information about the event and its outcome, study condition, concomitant medications, the subject's medical history and current conditions, and all relevant laboratory data. Notification by secure e-mail of all related study forms shall be made to the DF/HCC IRB within 24 hours of the occurrence of any SAE. Information will be reviewed and a determination made of whether there was any possible relevance to the study interventions. Reporting to NIH will be made according to their respective regulations governing SAE reporting.
- Non-Serious Adverse Events: At weekly meetings, the research team will discuss summaries of the numbers and rates of adverse events by treatment group. These reports will include types of events, severity, and treatment phase.
- Other Safety-Related Reports: At weekly meetings, the research team will discuss summary reports of treatment retention and reasons for dropout or withdrawal by treatment group.
- Study Stopping Rules: We do not have a pre-specified stopping rule given the low-risk nature of the proposed study. However, if at any point the DF/HCC or the study investigators judge that the risks of study procedures outweighs the benefits, the project will be stopped immediately.
- Procedures to ensure confidentiality, preparation of reports, minutes, and recommendations: We will work with the CRC to prepare study reports and circulate them to research team during the weekly scheduled project meetings. These reports will include overall study progress and safety data. At the conclusion of each research group meeting, the investigators will determine whether any changes in the conduct of the trial are recommended.

13.0 Withdrawal of Subjects

We do not anticipate that any research participants will be withdrawn from the research study without their consent. If a participant requests to withdraw from the study, we will ask if they are comfortable sharing the reason for withdrawing to ensure that there are no necessary serious adverse events to report to the IRB. Subsequently, we will ask the participant if they are still willing to permit the study team to continue to access their EHR.

14.0 Risks to Subjects

14.1 Reporting Adverse or Unanticipated Events

We do not anticipate any harm with our study procedures. While some topics probed in study assessments and the STRIDE Intervention may be sensitive in nature, no adverse or unanticipated events occurred in previous studies of psychological interventions conducted by our research group. Reportable adverse events would include a breach of confidentiality. Should adverse or unanticipated events occur during the study, a trained study staff member will report the events to the IRB as soon as they are discovered.

14.2 Anticipated Reaction

As this is a low-risk, social/behavioral study, there are no ingested medications, and no biomedical procedures. It is unlikely that participants will be at any risk for physical harm because of study participation. Participants may find some of questions in the questionnaire or

content in the intervention to be emotionally upsetting, and if so, they may experience some distress.

14.3 Reaction Management

The consent form will include all the study procedures, information about potential risks and benefits of participation, and information regarding whom the participant can contact for further questions. It also will state that participation is voluntary, that participants can refuse to answer any question, that they can withdraw from the study at any time, and that study participation is in no way related to their medical care. All study staff will complete the required human subjects training before they can work on any human subject aspects of the study.

If a participant expresses distress during the psychological intervention visits or exit interviews, they will be reassured by the clinician or study staff member conducting the intervention visit or interview that they can stop at any time and that they do not need to continue participating in content or answer interview questions which they find upsetting. They will also be reminded that study participation is voluntary. If participants remain distressed, they will be offered an opportunity to meet with a psychologist in the Psychiatric Oncology Service at the MGH Cancer Center to help address their distress.

For all participant assessments given throughout the study, study staff will review assessments upon receipt from participants for completion and to assess distress. On the HADS, patients who endorse ≥11 on even items for a more severe range for depression will be called by qualified study staff (e.g., Dr. Jacobs, a licensed clinical psychologist, Dr. Greer, a licensed clinical psychologist, Amy Corveleyn, a licensed clinical social worker, as well as qualified clinical psychology practicum students and fellows). If a participant completes the distress assessment online through the secure REDCap portal, a study staff member will check the responses and notify the PI for follow-up if needed within 72 hours of assessment completion. If a participant completes assessments on paper, study staff will check the responses and notify the PI for follow-up if needed within 72 hours of receipt. If the patient needs further outpatient services for depression, including pharmacotherapy, or is at risk for self-harm requiring hospitalization, study staff will make the necessary referrals for treatment. For example, for patients who are distressed but in no danger to self or others, study staff will refer either to the MGH Oncology Social Work Service or to the MGH Outpatient Psychiatry Department (617-724-5600), including the Cognitive-Behavioral Therapy Program. If suicidality or risk of harm to others is otherwise discovered at any study visit, the participant will be referred to appropriate services. Specifically, in the case that hospitalization is required, study staff will contact and escort the patient to the MGH Acute Psychiatry Service (617-726-2995), with the aid of the MGH Police & Security if necessary (617-726-2121). If a referral for outpatient services is made, or the patient requires escort to the MGH Acute Psychiatry Service, study staff will notify the health care team, including the primary oncologist.

15.0 Potential Benefits to Subjects*

Challenges associated with AET, including side effects, distress, or difficulties with adherence, are common among BCS. We anticipate the STRIDE Intervention will provide potential benefit to participants by teaching and reinforcing skills to manage these challenges. The intervention was directly informed by qualitative interviews with BCS taking AET to ensure the intervention is beneficial and patient-centered. Additionally, run-in period feedback will be used to further inform the intervention for maximum benefit for participants in the RCT. The risk from participation in the study is small (and will be minimized by the procedures outlined above), and the overall risk to benefit ratio is favorable.

16.0 Vulnerable Populations: Not applicable

17.0 Community-Based Participatory Research: Not applicable

18.0 Sharing of Results with Subjects

If a participant expresses interest in learning the results of the study, their contact information will be collected and securely stored by study staff. Upon completion of data collection for the study, study staff will provide interested participants with an abstract of study results.

19.0 Setting

19.1 Location

As previously stated in recruitment and enrollment procedures (Section 5.1), participants will be approached in-person in the MGH Center for Breast Oncology outpatient clinic in the Yawkey Center for Outpatient Care or called after receiving permission from their care team. Participants from other sites will be contacted via phone. Upon approach, in-person or over the phone, study staff will ensure complete confidentiality of all study information and procedures.

20.0 Resources Available

20.1 Team Qualifications

The PI, Dr. Jacobs, is responsible for full oversight of the project at MGH and participating institutions. She will be meeting with the CRC on weekly basis (and more often as urgent issues arise) to ensure the study process is being followed accurately and to address potential challenges or issues as they may arise. Dr. Jacobs is a member of the MGH Cancer Outcomes Research Program (CORe). CORe has extensive experience conducting multi-site randomized clinical trials of supportive care interventions in oncology and has the necessary expertise to ensure the success of the proposed project.

20.2 Site Resources

On an average year, 517 women with newly diagnosed breast cancer were treated with AET at the MGH Cancer Center. Based on literature and our initial findings from Phase 1 of this study, we expect up to 40% will have poor adherence and between 20-25% will have distress. Patients will screen in if they are experiencing distress related to AET, adherence, or side effects, they would be eligible for the study; therefore, we estimate the number of eligible patients may range from 104-208 patients per year.

21.0 Prior Approvals: Not applicable

22.0 Recruitment Methods

As described in Section 5.0, all recruitment methods will be centrally located and executed by study staff at the lead site, MGH Boston. Recruitment strategies include EHR screening, the Partners Rally Recruitment Portal, and Provider Referral.

As detailed in Section 26.0, participants will be provided with compensation of up to $60 total ($20/assessment) throughout the study for their time to complete study assessments (Appendix 30.19).

23.0 Local Number of Subjects

Each MGH-affiliate site will have a local accrual goal of 10 participants. The lead site, MGH Boston, will have a goal of 75 participants. The overall study accrual goal will be up to 105 participants (run-in, n=5, RCT n=100).

24.0 Provisions to Protect the Privacy Interests of Subjects

As detailed in the Data Safety Monitoring Plan (Section 12.0), all subjects will receive a confidential number identifier. All participants will be identified on study assessments by their number identifier. Identifiers, such as name, will only be used during the initial data retrieval process and can be destroyed once all data records have been obtained and data analysis has been completed as discussed previously.

25.0 Compensation for Research-Related Injury

We do not anticipate any research-related injury due to involvement in this supportive care trial

26.0 Economic Burden to Subjects

Participants will not endure any additional costs as part of their participation in this research study. As such, we do not anticipate any financial burden on study participants. The study intervention visits will not be billed.

Additionally, study participants will be compensated for their time to complete the three study questionnaire batteries (baseline, 12-weeks post-baseline, and 24-weeks post-baseline). Participants will be compensated up to $60 ($20/assessment completed) in the form of a check (Appendix 30.19).

27.0 Consent Process

As stated previously, study staff will consent patients either in-person or over the phone using study scripts. We will follow all the requirements of SOP: Informed Consent Process (CON-100) in obtaining informed consent for study participants.

Electronic Informed Consent Process (EIC): In the event that a potentially eligible patient expresses interest over the phone but will not be in clinic in the near future or receives care at an MGH-affiliate site, study staff will begin the EIC process. Patients will be asked to provide verbal permission and a preferred email address to be sent an email with a link through REDCap (Appendix 30.20). The REDCap link will direct patients to an encrypted REDCap portal; the Electronic/Paperless Consent Template Project will be used. Screen captures of what the EIC REDCap portal looks like are included in Appendix 30.21. This process begins with the patient verifying their date of birth and full name in order to enter the portal. Additionally, this portal will have the electronic (paperless) consent form, exactly identical in content to the paper version, to guide the patient through the consent discussion with study staff over the phone. At any point, if a patient would prefer to receive a hard copy of the consent form, the EIC process will stop and study staff will send the patient two copies of the consent form in the mail with a prepaid envelope to send it back. The patient will be given ample opportunity to ask questions and take their time to consider their participation. From there, patients will digitally sign and date the consent form. The study staff will then sign and date the consent form as the consenting investigator and send a digital or paper copy of the signed consent form per the participant's preference, sent via Send Secure email if digitally or informed and given the opportunity to opt-out of Send Secure using the Partners Send Secure opt-out language. This process has been found to be highly efficient among other psychosocial research studies, including DF/HCC Protocol #17-201 which directly informed this study, and minimizes burden to patients, study staff, and providers.

Enrollment Procedures. DF/HCC institutions will register eligible participants in the Clinical Trials Management System (CTMS) Oncore as required by DF/HCC SOP REGIST-101. Registration must occur prior to the initiation of protocol-specific procedures or assessments.

For registration of patients from DF/HCC institutions, which will be all participants in this study, study staff will complete the DF/HCC protocol-specific eligibility checklist using the eligibility assessment

documented in the participant's EHR and/or research chart. Study staff will confirm that the participant meets all inclusion criteria as described in this protocol and the criteria on the eligibility checklist. Study staff will be responsible for self-randomization of participants (Biostatistician-generated Randomization Scheme: Appendix 30.8) per ODQ request to decentralize non-therapeutic studies under the DF/HCC. MGH study staff will follow DF/HCC Standard Operating Procedure for Human Subject Research Titled *Subject Protocol Registration* (SOP #: REGIST-101) and register the participant on the protocol.

28.0 Process to Document Consent in Writing

As stated previously, all participants will provide written informed consent to partake in the study.

Handling of Study Documents. Study source documents, including but not limited to signed informed consent forms, completed eligibility checklists, and participant questionnaires, will be scanned and stored digitally as certified copies on a secure drive only available for access to trained study staff working with the documents. The drive will be only accessible with proper invitation to the drive by the Principal Investigator through their Partners account, which will require personal username and password information to access. Trained study staff will follow specific standard operating procedures for handling source documents and certifying each copy appropriately. The procedures are as follows. After source documentation is filled out by the participant, study staff will collect the original source document. The study staff member scanning documents will be kept as consistent as possible throughout the duration of the study to ensure uniformity among source documentation handling. Location, time, and date of the scanning of the document will be recorded at the time of scanning. Study staff will fill out the Source Documentation Certified Copy Cover Sheet (Appendix 30.22) and include this as the first page of the electronic version of the source document. After the source document is scanned and the corresponding electronic document is confirmed to be legible, all facing the correct direction, and together as a single document, it will be collected and destroyed immediately. Study staff will destroy the original copy of the source document by following MGH procedures of destroying documents with Personal Health Information (PHI). Electronic versions of source documents will allow study staff to access these documents regardless of where the original copy is stored, which may be inconvenient, increase study staff burden, and study cost if storage of documents is far from the location where research activities will be conducted or required to be placed in long term storage. This process has been developed streamlined, and successfully implemented in DF/HCC Protocol #17-201. If a patient is consented electronically, the completed version of their digital consent form will be saved as the completed, original source document and no certified copy cover sheet will be used.

29.0 Drugs or Devices: Not Applicable

30.0 Appendices

30.1 Clinician Approach Email
30.2 Clinician Study Information Handout
30.3 Study Screening Script
30.4 Study Telephone Recruitment Script
30.5 Partners Rally Recruitment Advertisement
30.6 Study Recruitment Flyer
30.7 Study Recruitment Voicemail Script
30.8 Study Randomization Scheme
30.9 Session Rating Form
30.10 Semi-Structured Run-In Interview Script
30.11 Semi-Structured RCT Interview Script
30.12 The STRIDE Intervention
30.13 Patient Locator Form
30.14 SMS Text Message Templates
30.15 Study Email Templates
30.16 Study Timeline Document
30.17 Baseline, 12-week, & 24-week Post-Baseline Assessment
30.18 Patient Screening Questions
30.19 Session Acceptability Measure
30.20 Remuneration Form
30.21 EIC REDCap Invitation
30.22 EIC REDCap Portal Screen Captures
30.23 Source Document Certified Copy Cover Sheet
30.24 Supplemental Medication Diary
30.25 MEMS Participant Instructions
30.26 Relation Recording Website Draft (Screenshots)
30.27 Approach Chart Flyer
30.28 ECOG Screener
30.29 STRIDE Introduction Note Content
30.30 Telehealth How-to

30.1 Clinician Approach Email

Clinician Opt-out Email Template

Symptom-Targeted Randomized Intervention for Distress and Adherence
PI: Jamie Jacobs, Ph.D.

Dear [Dr./NP/PA PROVIDER NAME],

I am a research coordinator working with Dr. Jacobs on a symptom-targeted randomized study for symptom management, distress, and adherence among breast cancer survivors on adjuvant endocrine therapy.

Your patient(s) may be eligible for the study:

Name	MRN	DOB

I would like to approach her regarding the study. Please let me know at your earliest convenience if I should refrain from approaching this patient for any reason. If I do not hear from you, I will follow-up to request permission.

Study participation does not preclude you and the rest of the patient's care team from medically treating the patient's symptoms per your clinical judgment.

Please feel free to let me know if you have any questions or concerns. Additionally, I have included a brief attachment with more study information.

Thank you,

_____
(name of study staff)

30.2 Clinician Study Information Handout

Symptom-**T**argeted **R**andomized **I**ntervention for **D**istress and Adherence among Breast Cancer Survivors on Adjuvant **E**ndocrine Therapy (STRIDE):

A pilot feasibility trial

K07 Funded by the National Cancer Institute

PI: Jamie Jacobs, Ph.D.

Study Rationale

- This study aims to enhance adherence, improve symptom management, and reduce distress among early-stage breast cancer survivors taking adjuvant endocrine therapy (AET)
- AET improves clinical outcomes for hormone-sensitive breast cancer, yet adherence among survivors is poor
- Barriers to adherence are well-established and modifiable; including concerns about adverse side effects, low appraisal of recurrence risk and need for therapy, and high distress (anxiety or depressive symptoms)
- Surprisingly, few interventions have been tested to promote adherence to AET, and none have addressed these modifiable factors
- Based on a qualitative study with breast cancer survivors, experts in hormonal symptoms, breast oncology clinicians, and behavioral psychologists, we developed a patient-centered, evidence-based intervention to improve symptom management, mitigate distress, and enhance AET adherence

Study Specifics

- This is a pilot randomized controlled trial in which patients will be randomized to receive either the STRIDE intervention or usual care
- The intervention consists of 6, one-hour sessions delivered over videoconferencing with a psychologist, psychology trainee/fellow, or social worker and two check-in phone calls (15-30 minutes)
- Patients in the control group will receive care as usual
- All patients will be asked to store their AET in study-provided, electronic pill bottles to monitor adherence and complete assessments at baseline, 12 weeks, and 24 weeks after enrollment

What Is Needed from You as the Clinician?

- Approve or deny study staff request to approach potentially eligible participants
- Refer patients you think may be eligible and a good fit for the study
- Provide care as usual

Patient Inclusion and Exclusion Criteria

- Female, age 21 or older, ability to read and respond in English
- Lives within the state of Massachusetts
- Diagnosis of early-stage (stage 0-IIIb), hormone-receptor positive breast cancer
- Completed any primary treatment
- Eastern Cooperative Oncology Group (ECOG) performance status ≤ 2
- Within 1 week to 36 months of initiating AET and is currently taking AET
    - If took a recent break, has taken AET within the past two weeks
- May not be on another clinical trial requiring medication monitoring
- May not have psychiatric or cognitive impairment
- Is not currently undergoing active primary treatment for other cancer (i.e. advanced stage cancer)

Study Contact Information:

- Please send potentially eligible patients to the study coordinators, Katina Massad (kmassad@mgh.harvard.edu) or Julia Cohn (jgcohn@mgh.harvard.edu), or to the study PI, Dr. Jamie Jacobs, at jjacobs@mgh.harvard.edu

0.3 Study Screening Script

Hi, my name is [study staff] and I am a research assistant in the Cancer Center at MGH. I work on a study you might be interested in. Your oncologist said it would be alright if we speak with you about this study. This study offers a program for women who are taking a hormonal therapy and consists of 6 weekly, small-group, virtual visits with a cancer center clinician to address any concerns or challenges you may be experiencing while taking this medication. These visits would take place over a secure videoconferencing software with up to 2 other breast cancer survivors who are also taking hormonal therapy. Does this sound like something you might be interested in?

Each question is scored on a scale of 0-10. The first question is, on a scale of 0 being not bothered at all to ten being extremely bothered, how bothered are you by side effects from your hormonal therapy?

My next question is, on a scale of 0 being not upset at all to ten being extremely upset, how upset are you by having to take hormonal therapy?

My last question is, on a scale of 0 being not difficult at all to 10 being extremely difficult, how difficult is it for you to take your hormonal therapy medication every day?

IF A SCORE OF 4 OR ABOVE ON ONE OR MORE: Thank you for going through those questions with me. It sounds like you would be a good fit for this study. The next step is to go through the consent form, which I can send you over email. What is the best email address to send it to?

IF A SCORE OF 3 OR LESS ON ALL THREE: Thank you for going through those questions with me. It sounds like you are doing well with taking the hormonal therapy medication right now and you screen out for the study. Would it be alright if I were to check in with you at some point in the future to see how you're doing?

IF YES: [Collect best contact information and thank for their time], continue to Part E

IF NO: Thank you for speaking with me today. You are always welcome to reach out if you have any questions about anything we spoke about today, but we will not reach out in the future.

30.4 Study Telephone Recruitment Script

Hi, this is [Study Staff Name] calling from Massachusetts General Hospital. How are you today?

A1. Self-referral call-back: Thank you for reaching out to our study team regarding your interest in the STRIDE study. I would be happy to give you a brief overview of the study if you have a few minutes. Is now a good time?

IF YES: Continue to Section B.

IF NO: Is there a better time in the coming days I could give you a call back? [Continue to Section F.]

A2. Recruitment call: I am calling regarding a research study you might be eligible for and may have received a study flyer for while in-clinic last. Is now a good time that I could give you a brief overview of the study?

IF YES: Continue to Section B.

IF NO: Is there a better time in the coming days I could give you a call back? [Continue to Section F.]

B. Study Description

This study offers a program for women who are taking a hormonal therapy and consists of 6 weekly, small-group, virtual visits with a cancer center clinician to address any concerns or challenges you may be experiencing while taking this medication. Your oncologist said it would be alright if we speak with you about this study. These visits would take place over a secure videoconferencing software with a few other breast cancer survivors who are also taking hormonal therapy. Does this sound like something you might be interested in?

IF YES: Continue to Section C.

IF NO: Continue to Section F.

C. Eligibility Screening

Thank you for your interest; so, I have a few initial questions we like to ask to get a sense of if this study might be a good fit for you. All of these questions are optional and completely confidential.

Each question is scored on a scale of 0-10. The first question is, on a scale of 0 being not bothered at all to ten being extremely bothered, how bothered are you by side effects from your hormonal therapy?

My next question is, on a scale of 0 being not upset at all to ten being extremely upset, how upset are you by having to take hormonal therapy?

My last question is, on a scale of 0 being not difficult at all to 10 being extremely difficult, how difficult is it for you to take your hormonal therapy medication every day?

IF A SCORE OF 4 OR ABOVE ON ONE OR MORE: Thank you for going through those questions with me. It sounds like you would be a good fit for this study. The next step is to go through the consent form, which I can send you over email. What is the best email address to send it to?

IF A SCORE OF 3 OR LESS ON ALL THREE: Thank you for going through those questions with me. It sounds like you are doing well with taking the hormonal therapy medication right now and you screen out for the study. Would it be alright if I were to check in with you at some point in the future to see how you're doing?

IF YES: [Collect best contact information and thank for their time], continue to Part E

IF NO: Thank you for speaking with me today. You are always welcome to reach out if you have any questions about anything we spoke about today, but we will not reach out in the future. Continue to Part E.

D. Consent Form Access and the Informed Consent Discussion

Okay, I have sent the consent form to the email you provided. You should expect an email with the subject line “MGH STRIDE Study.” This email will be sent from me and will include a link at the bottom. When you receive this email, please click this link to be directed to the consent form. The portal will prompt you to enter your full name and birthday to verify who you are to see the consent form.

[Informed Consent Discussion]

E. Not Interested, Refusal, Paper-Consent Preference, Ineligible Outcome

Thank you so much for your time today. Please feel free reach out with any questions or concerns related to the study.

30.5 Partners Rally Recruitment Advertisement

Headline: STRIDE: Symptom-Targeted Randomized Intervention for Distress on Endocrine Therapy

Summary (240 characters): If you were diagnosed with breast cancer and are currently taking a hormonal therapy, you may be eligible to participate in this research study. Participants are randomized to complete a 6-week, small-group, virtual intervention.

Project Title: Symptom-Targeted Randomized Intervention for Distress and Adherence to Adjuvant Endocrine Therapy (STRIDE) among Breast Cancer Survivors: A pilot feasibility trial

Categories: Breast Cancer, Cancer, Medicines

Project Image:

CT.gov Identifier: To be assigned
Funding Source: NIH

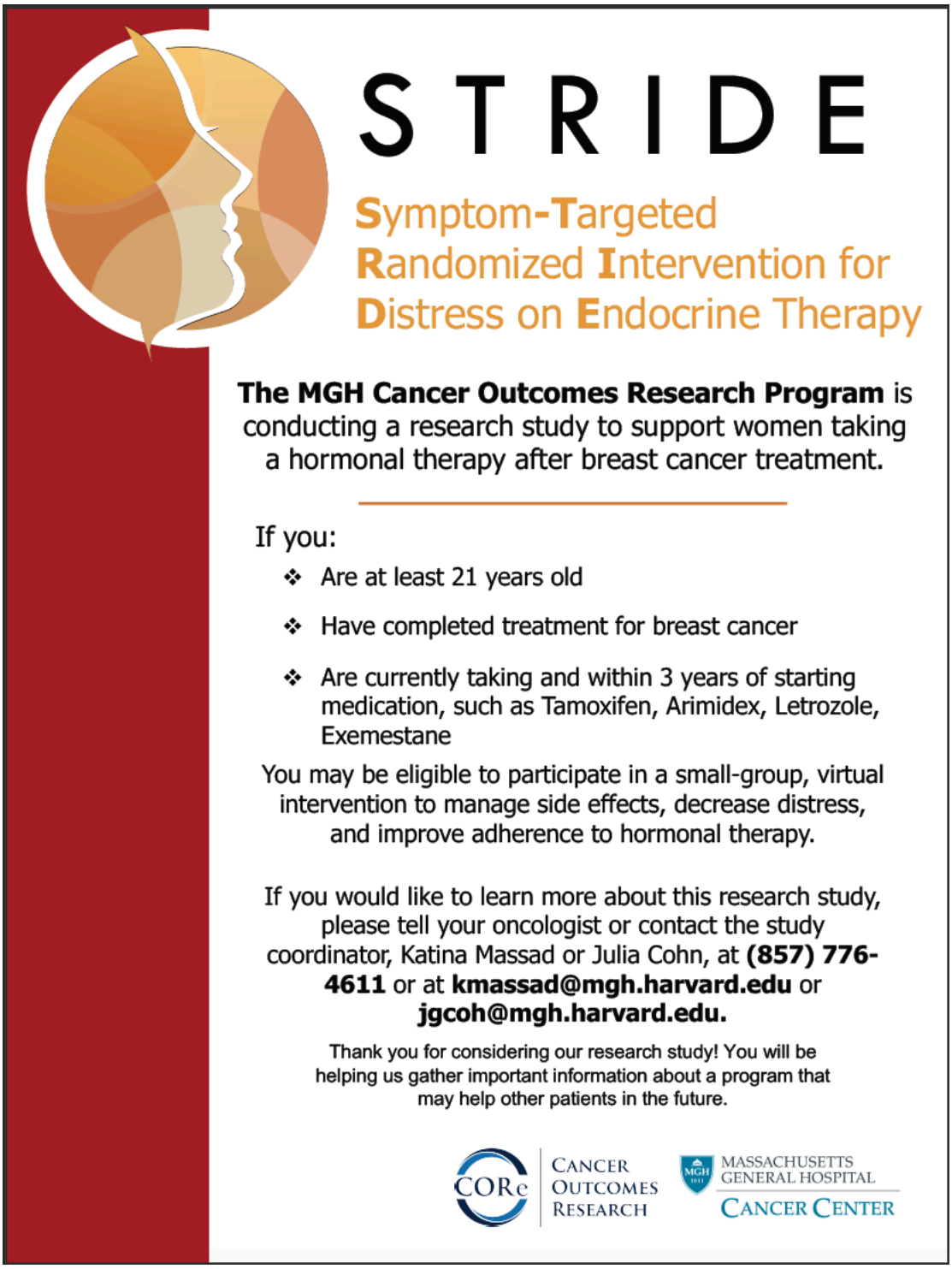
Institutions conducting research: MGH, Newton-Wellesley, MGH North Shore, MGH Waltham
IRB Organization: DF/HCC Dana Farber Cancer Institute

Recruitment start date: 2/1/2019
Recruitment end date: 5/1/2022

What are you studying?
We are studying the feasibility and effectiveness of a tailored program for women currently taking hormonal therapy for breast cancer to reduce distress and improve side effect management and adherence.

Why is it important?
A variety of challenges can arise around taking hormonal therapy, which can interfere with daily living and ability to take the medication. This program will allow women to explore and manage these concerns in a small-group with other breast cancer survivors and a cancer center clinician.

30.6 Study Recruitment Flyer



30.7 Study Recruitment Voicemail Script

Hi, this is [study staff contact] calling from Massachusetts General Hospital. I am calling to get in contact with [patient name] about a program you may be interested in. Please give me a call back when you have the chance. You may reach me at [study staff contact information]. Thank you.

30.8 Study Randomization Scheme

Randomization sheet for 18-603 - Elevated Distress					
Symptom Targeted Randomized Intervention for Distress and Adherence to Adjuvant Endocrine Therapy among Breast Cancer Survivors					
Stratification factors: Distress (elevated or not elevated)					
Treatment codes					
Arm B:	Intervention				
Arm C:	Control				
Distress level	**Patient name**	**Sequence no.**	**Date entered**	**Treatment assignment**	
Elevated				Arm B	
Elevated				Arm C	
Elevated				Arm C	
Elevated				Arm B	
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Elevated				Arm C	

Randomization sheet for 18-603 - Not Elevated Distress					
Symptom Targeted Randomized Intervention for Distress and Adherence to Adjuvant Endocrine Therapy among Breast Cancer Survivors					
Stratification factors: Distress (elevated or not elevated)					
Treatment codes					
Arm B:	Intervention				
Arm C:	Control				
Distress level	**Patient name**	**Sequence no.**	**Date entered**	**Treatment assignment**	
Not elevated				Arm C	
Not elevated				Arm C	
Not elevated				Arm B	
Not elevated				Arm B	
Not elevated				Arm B	
Not elevated				Arm C	
Not elevated				Arm B	
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30.9 Session Rating Form

Session 1 Your study ID _____
Please rate the following 5 items on a scale from 1 (Not at all) to 10 (Extremely so)

1. How enjoyable was today's session? _____
2. How convenient was today's session? _____
3. How helpful was today's session? _____
4. How likely are you to use skills/information from today's session in the future? _____
5. How would you rate your overall satisfaction with today's session? _____

Session 2 Your study ID _____
Please rate the following 5 items on a scale from 1 (Not at all) to 5 (Very much)

1. How enjoyable was today's session? _____
2. How convenient was today's session? _____
3. How helpful was today's session? _____
4. How likely are you to use skills/information from today's session in the future? _____
5. How would you rate your overall satisfaction with today's session? _____

Session 3 Your study ID _____
Please rate the following 5 items on a scale from 1 (Not at all) to 5 (Very much)

1. How enjoyable was today's session? _____
2. How convenient was today's session? _____
3. How helpful was today's session? _____
4. How likely are you to use skills/information from today's session in the future? _____
5. How would you rate your overall satisfaction with today's session? _____

Session 4 Your study ID _____
Please rate the following 5 items on a scale from 1 (Not at all) to 5 (Very much)

1. How enjoyable was today's session? _____
2. How convenient was today's session? _____
3. How helpful was today's session? _____
4. How likely are you to use skills/information from today's session in the future? _____
5. How would you rate your overall satisfaction with today's session? _____

Session 5 Your study ID _____
Please rate the following 5 items on a scale from 1 (Not at all) to 5 (Very much)

1. How enjoyable was today's session? _____
2. How convenient was today's session? _____
3. How helpful was today's session? _____
4. How likely are you to use skills/information from today's session in the future? _____
5. How would you rate your overall satisfaction with today's session? _____

30.10 Semi-Structured Interview Script

Introduction

Hello, my name is ___. You have been asked to participate in this interview to share your experiences going through the STRIDE program. I will ask you a variety of questions about your experiences during the study. I greatly appreciate your willingness to participate in this study.

This interview will take 15-30 minutes.

Everything that you share with me today is confidential, and your answers will not affect your future participation in studies or your access to medical services.

There are no right or wrong answers to these questions. It is very important for us to hear your thoughts and feelings on the program, so we can improve it for the future.

I would like to audio-record this interview because I will not be able to write all this information down. The interview will be transcribed word for word and will allow us to capture your thoughts and feelings in your own words. No identifying information, such as your name or names of others, will be included in the transcript. Additionally, your responses will never be reviewed individually. Responses will be collected and combined from all participants for feedback to the study team.

Do I have permission to record this interview?

Before we start, do you have any questions about what we are doing here today?

(TURN ON RECORDER)

1. How did you feel about the number of STRIDE sessions?
2. How did you feel about how long each session lasted?
3. How satisfied were you with the information you received?
4. Have you used any of the skills that you learned?
   Probe: Relaxation skills, skills for coping with symptoms, etc.
5. How did you feel about the group structure?
6. How did you feel about the individual structure?
7. How did you feel about the videoconference?
8. How did you feel about attending sessions in person?
9. How did you feel about storing your medication in the bottle that we gave you?
   Probe: Was this difficult?
   Probe: Did anything get in your way of storing the medication there?
10. How did you feel about the packet of questionnaires?
    Probe: Too long?
    Probe: Was anything confusing?
11. How did you feel about the number of times we asked you to complete the questionnaires?
12. How did you feel about the phone check-ins that we did after the sessions?
13. Do you have any suggestions for how to improve our program?
14. Did anything get in the way of you being able to participate?
15. Would you recommend this to other women on hormonal therapy?

30.11 Semi-Structure RCT Interview Script

Semi-structured Interview Guide:

Introduction

Nice to speak with you, my name is ____ and thank you for being a part of this study! As a reminder, in (fill in) year, you participated in a study that was evaluating a program to support women on hormonal therapies after breast cancer. Now, we are conducting this final interview to understand how we can improve our study activities to be more sensitive and relevant for people from all cultural, racial, and ethnic backgrounds. We are hoping to expand this study to include more women who identify as Black, Latina, or Asian women, and want to make sure the program meets the needs of women from every background,

There are no right or wrong answers, and everything that you share is completely confidential. None of your answers will get back to your doctors or nurses, and your answers will not affect your future participation in studies or the care you receive here at MGH. We are asking all women the same questions, because the goal of this interview is to understand how we can make sure this program is relevant for women of different races, ethnicities, and cultures. So, I will also ask you a few questions about the program, whether you believe it would be helpful to women in the future, and if you have any concerns or suggestions to improve it.

The interview will take about 15-30 minutes. I will be moving us along so that we make sure to cover all of the questions.

As a reminder, I will be audio-recording this interview to make sure that I capture your thoughts and feelings in your own words. We will destroy the recording once we have transcribed it and no identifying information, such as your name or names of others, will be included in the transcript. Do I have permission to record this interview?

Do you have any questions before we start?

(START RECORDING)

1. Can you share with me, how do you identify yourself (for example, as a Black Hispanic woman, as a Chinese American)?

2. Was there anything that got in the way of you participating in this study?

3. Was there anything that got in your way of participating that relates to your race, ethnicity, culture, or other way you identify yourself?
    a. Offer examples: were the questions in the survey relevant to you? were the examples in the workbook relevant to you (only for intervention participants)?

4. What did you like about this study/program?

5. What did you dislike about this study/program?

6. Was there anything related to your race, ethnicity, or cultural background that got in the way of you taking your hormonal therapy medication every day?
    a. Offer example: some groups might question how well these medications work, some may have less trust in their doctors and nurses.

7. Was there anything related to your race, ethnicity, or cultural background that got in the way of your ability to manage side effects from the medication?
    a. Offer example: some groups might question how well these medications work, some may have less trust in their doctors and nurses.

8. Have you been able to talk with your doctors and nurses about any issues you have had with your hormonal therapy?

9. Do you feel that your experience, or concerns about this medication, are the same or different from other women in a similar position?
    a. Probe: how about women from different backgrounds?

10. How do you think we could make this program meet the needs of women of different backgrounds?

11. If we translated the program into Spanish, do you foresee any issues with Spanish-speaking women participating?

12. Is there anything you can think of, that could help support you to continue to take the medication?

30.12 The STRIDE Intervention

[See separately attached appendix item; will be given to all intervention arm participants.]

PARTICIPANT LOCATOR FORM

Participant name: _____

Mailing address: _____
(Street) (Apt.)

_____
(City, State, Zip)

Preferred phone: Please indicate: Mobile Home Work Other

_____

Alternate phone: Please indicate: Mobile Home Work Other

_____

If you would like to receive SMS text messaging reminders, please check the box below:

- I give permission to the STRIDE study team to contact me regarding this research study, using the mobile phone number provided;
- I understand that any communication using SMS with the study team is NOT HIPAA-compliant, not encrypted, and does not guarantee confidentiality.
- I understand that this number is not monitored regularly and should not be used for urgent or emergency situations.

☐ By checking this box, I understand and give my permission to contact me through SMS messaging.

Email address: _____

If you would like to receive emails without encryption, please check the box below:

- I understand that any communication using non-encrypted emails with the study team is NOT HIPAA-compliant and does not guarantee confidentiality.

☐ By checking this box, I understand and give my permission for the study team to contact me through non-encrypted email messaging.

Circle preferred survey delivery method: email via hard-copy mail

Can study staff leave voicemails regarding your participation in the study (Please circle one)? Y N

IN CASE WE HAVE TROUBLE REACHING YOU, PLEASE PROVIDE ONE OTHER PERSON WE COULD CONTACT
(This is optional and will not affect your participation in the research study).

Contact name: _____
(Last) (First) (M.I.)

Relationship to participant: _____

Preferred phone: _____

Alternate phone: _____

Text Message Reminder Templates
Symptom-Targeted Randomized Intervention for Distress and Adherence
PI: Jamie Jacobs, Ph.D.

[The following templates will be used for SMS messaging depending on context and status of a participant through the protocol. Under the discretion of trained study staff and extenuating circumstances, study staff may deviate slightly from the following templates to address scheduling/reminder situations not covered by the following. Under no circumstances will study staff ever screen or discuss personal medical history, exchange personal health information, or other sensitive information via SMS message. If a participant introduces sensitive information, including but not limited to the examples just listed, into a SMS message conversation, the study staff member will direct the participant to call them to discuss it further over the phone.]

MEMS Caps reminder:
Hello _____, this is a message from the STRIDE study at MGH. Our records indicate you have received the MEMS bottle. Please reply "Y" to indicate that you have received the bottle. Please begin using the bottle right away and contact [study staff contact information] if you have any questions. Thank you.

Questionnaire reminder:
Hello _____, this is a message from the STRIDE study at MGH. This is a reminder that it is time to complete the [12-week/24-week] questionnaire. This questionnaire will take roughly 30 minutes. You have received the questionnaire via [email/mail]. Please contact [study staff contact] if you have any questions. Thank you.

Intervention session reminder:
Hello _____, this is a message from the STRIDE study at MGH. This is a reminder that you have a STRIDE session tomorrow at _____. Please sign on to the session using the Telehealth link sent to you over email. Please contact [study staff contact] if you have any questions. Thank you.

30.15 Study Email Templates

Email Reminder Templates
Symptom-Targeted Randomized Intervention for Distress and Adherence
PI: Jamie Jacobs, Ph.D.

[The following templates will be used for emailing depending on context and status of a participant through the protocol. Under the discretion of trained study staff and extenuating circumstances, study staff may stray from the following templates to address scheduling/reminder situations not covered by the following. Under no circumstances will study staff ever screen or discuss personal medical history, exchange personal health information, or other sensitive information via email. If a participant introduces sensitive information, including but not limited to the examples just listed, into an email, the study staff member will direct the participant to call them to discuss it further over the phone.]

MEMS Caps reminder:
Hello _____,
We are reaching out regarding the STRIDE study at MGH. Our records indicate you have received the MEMS bottle. Please begin using the bottle right away. Please contact [study staff contact information] if you have any questions.
Thank you,
[Study Staff Member]

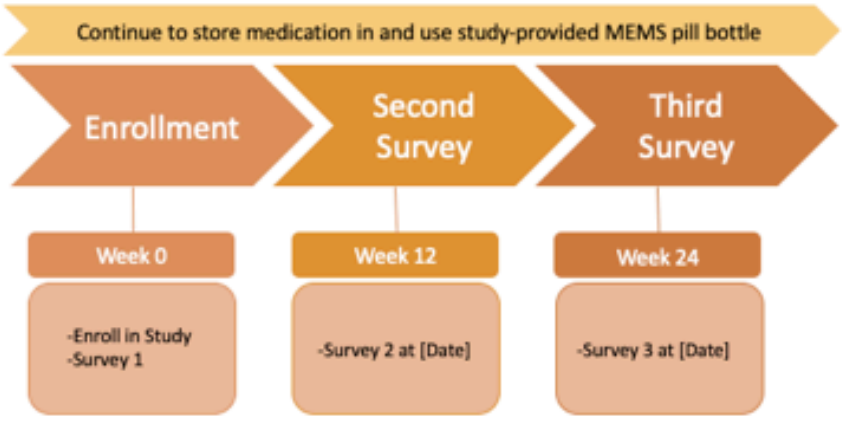
Questionnaire reminder:
Hello _____,
We are reaching out regarding the STRIDE study at MGH. This is a reminder that it is time to complete the [12-week/24-week] questionnaire, which will take roughly 30 minutes. You have received the questionnaire via [email/mail]. Please contact [study staff contact] if you have any questions.
Thank you,
[Study Staff Member]

Intervention session reminder:
Hello _____,
We are reaching out regarding the STRIDE study at MGH. This is a reminder that you have a STRIDE session tomorrow at _____. Please sign on to the session using the Telehealth link sent to you over email. Please contact [study staff contact] if you have any questions.
After the session, you can access the relaxation recordings at stridestudy.mgh.harvard.edu.
Thank you,
[Study Staff Member]

30.16 Study Timeline Document

Participant Roadmap

Welcome to the STRIDE Study! Here is a roadmap of what to expect as a participant in this study.

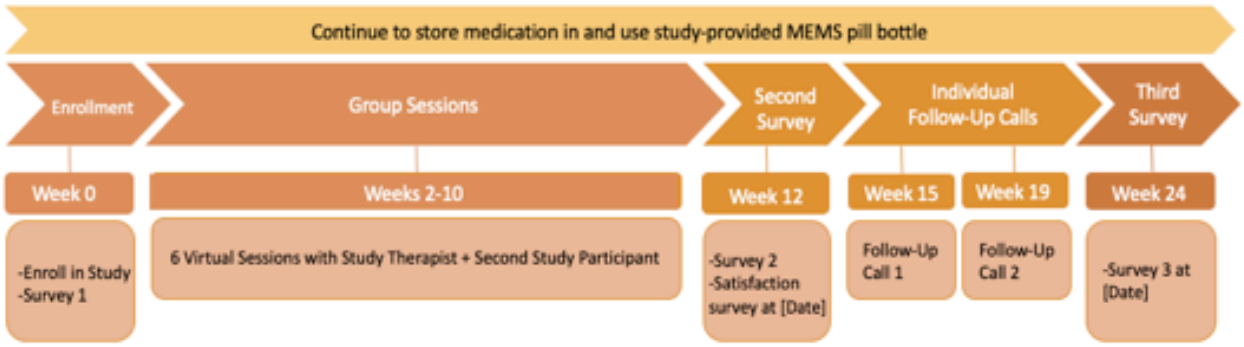


If you have any questions please contact [study coordinator names] at [study coordinator emails] or at (857) 776-4611.

STRIDE

Participant Roadmap

Welcome to the STRIDE Study! Here is a roadmap of what to expect as a participant in this study.



If you have any questions please contact [study coordinator names] at [study coordinator emails] or at (857) 776-4611.

STRIDE

30.17 Baseline, 12-week, & 24-week Post-Baseline Assessment
[Instruments given only at specific timepoints are indicated

STRIDE: **S**ymptom-**T**argeted **R**andomized **I**ntervention for **D**istress on **E**ndocrine Therapy

(Patient Questionnaires)

Assessment Time Point: Baseline / Post-Week:

Study ID: __ __ __

Research Assistant Initials: __ __ __

Assessment Date: __ __/ __ __/ __ __ __ __

IF FOUND, PLEASE RETURN TO:
Jamie Jacobs, Ph.D.
Dept. of Psychiatric Oncology, Yawkey 10B
Massachusetts General Hospital
55 Fruit Street, Boston, MA 02114-3117
Phone: 617-643-1777
JJACOBS@mgh.harvard.edu

Demographics [ONLY TO BE GIVEN AT TIME OF BASELINE ASSESSMENT]

Patient Demographics

Please check the appropriate box or boxes.

1. Age:_____

2. Ethnicity

☐ Hispanic or Latino
☐ Not Hispanic or Latino

3. Gender: _____

4. Race (please check all that apply)
- ☐ American Indian or Alaskan native
- ☐ Asian
- ☐ African American or Black
- ☐ Native Hawaiian or other Pacific Islander
- ☐ White
- ☐ Other (please specify):_____

5. Current relationship status
- ☐ Married or living with someone as if married
- ☐ Non-cohabiting relationship
- ☐ Single, never married
- ☐ Divorced/Separated
- ☐ Loss of long term partner/Widowed

6. Please indicate your highest or current education level
- ☐ 11th grade or less
- ☐ High school graduate or GED
- ☐ 2 years of college/Associate's degree/ Technical school training
- ☐ College graduate (BA or BS)
- ☐ Master's degree
- ☐ Doctorate/Medical degree/Law degree

7. What is your annual combined household income?
- ☐ Less than $25,000
- ☐ $25,000 – $49,999
- ☐ $50,000 – $99,999
- ☐ $100,000 – $149,999
- ☐ $150,000 or greater

8. Current employment status
(please check all that apply):
- ☐ Employed (full-time or part-time)
- ☐ Caring for home or family (not currently working and not looking for paid work)
- ☐ Unemployed and looking for work
- ☐ Unable to work due to illness or disability
- ☐ Retired
- ☐ Student
- ☐ Other (please specify):_____

Medication Adherence Report Scale (MARS-5)

Answers: 1: Always, 2: Often, 3: Sometimes, 4: Rarely, 5: Never

1. I forget to take my adjuvant endocrine therapy (AET) medicine
2. I alter the dose of my AET medicine
3. I stop taking my AET medicine for a while
4. I decide to skip one of my AET tablets
5. I take AET less than prescribed

Breast Cancer Prevention Trial Symptom Checklist (BCPT)

Physical Symptoms - BCPT

We are interested in knowing how much you have been bothered by any of the following problems during the **PAST WEEK.** *(Check one box on each line. If you do not have the problem, check "not at all".)*

During the **past week,** how much were you bothered by:

	Not at all	Slightly	Moderately	Quite a bit	Extremely
1. Hot flashes	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
2. Nausea	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
3. Vomiting	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
4. Difficulty with bladder control when laughing or crying.	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
5. Difficulty with bladder control at other times	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
6. Vaginal dryness	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
7. Pain with intercourse	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
8. General aches and pains	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
9. Joint pains	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
10. Muscle stiffness	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
11. Weight gain	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
12. Unhappiness with the appearance of your body	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
13. Forgetfulness	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
14. Night sweats	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4

15. Difficulty concentrating	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
16. Being easily distracted	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
17. Arm swelling (lymphedema)	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
18. Decreased range of motion in arm on surgery side	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
19. Vaginal discharge	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
20. Vaginal bleeding or spotting	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
21. Genital itching/irritation	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
22. Lack of energy	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
23. Tiredness	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
24. Lack of interest in sex	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
25. Low sexual enjoyment	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4
26. Difficulty sleeping	☐ 0	☐ 1	☐ 2	☐ 3	☐ 4

Cancer Therapy Satisfaction Questionnaire (CSTQ) (21-item) -

Cancer Therapy Satisfaction Questionnaire

- The following pages ask some questions about your hormonal therapy (pills).
  - Please read each question and answer as honestly as you can without the help of anyone.
  - There are no right or wrong answers; the answers should be based on your own personal experiences.
  - All of your answers will remain confidential.
  - This questionnaire will take about 10 min to complete.

Your Thoughts about Hormonal Therapy (pills)

The following statements ask you to share your thoughts about cancer therapy (IV/pills). Please answer each question below by *checking the box* that best represents your opinion (check only one box per question).

In general, in the last four weeks, how *often did you feel:*

	Always	Most of the time	Sometimes	Rarely	Never
1. That hormonal therapy (pills) would help you to return back to a normal life?	☐5	☐4	☐3	☐2	☐1
2. That hormonal therapy (pills) would get rid of the cancer?	☐5	☐4	☐3	☐2	☐1
3. That hormonal therapy (pills) would help prevent the cancer from coming back?	☐5	☐4	☐3	☐2	☐1
4. That hormonal therapy (pills) would stop the cancer from spreading?	☐5	☐4	☐3	☐2	☐1
5. That your hormonal therapy (pills) limited your daily activities?	☐5	☐4	☐3	☐2	☐1
6. Upset about the side effects?	☐5	☐4	☐3	☐2	☐1
7. That hormonal therapy (pills) was worth taking even with the side effects?	☐5	☐4	☐3	☐2	☐1
8. That hormonal therapy (pills) would help you live longer?	☐5	☐4	☐3	☐2	☐1
9. In general, in the last four weeks, how often did you think about stopping your hormonal therapy (pills)?	☐5	☐4	☐3	☐2	☐1

In general, in the last four weeks, how *often did you:*

	Always	Most of the time	Sometimes	Rarely	Never
10. Have trouble remembering to take your hormonal therapy pills?	☐5	☐4	☐3	☐2	☐1
	Always	Most of the time	Sometimes	Rarely	Never
11. Take your hormonal therapy exactly as directed by your doctor?	☐5	☐4	☐3	☐2	☐1

If you answered “always” to question 11, please skip question 12 and continue with question 13.

12. If you did not always take hormonal therapy pills as directed, why didn’t you?
    (Please check all that apply)
    ☐1 I forgot

☐2 It was inconvenient
☐3 I felt I needed a break
☐4 I felt I did not need it
☐5 Side effects

Satisfaction with Hormonal Therapy (pills)

The following statements are about your satisfaction with your hormonal therapy (pills). Please answer each question below by *checking the box* that best describes your level of satisfaction (check only one box per question).

13. **Overall,** how inconvenient was it for you to take your hormonal therapy (pills)?

☐5	☐4	☐3	☐2	☐1
Very convenient	Convenient	Neither convenient Nor inconvenient	Inconvenient	Very Inconvenient

14. **Overall,** how bothered were you by the amount of time it took to take your hormonal therapy (pills)?

☐5	☐4	☐3	☐2	☐1
Very bothered	Quite bothered	Moderately bothered	A little bothered	Not bothered at all

15. **Overall,** how worthwhile was your hormonal therapy (pills)?

☐5	☐4	☐3	☐2	☐1
Very worthwhile	Quite worthwhile	Moderately worthwhile	A little worthwhile	Not worthwhile at all

16. **Overall,** was taking hormonal therapy (pills) as difficult as you expected?

☐5	☐4	☐3	☐2	☐1
Much more difficult than I thought it Would be	Somewhat more difficult than I thought it would be	As difficult as I thought it would be	Somewhat easier than I thought it would be	Much easier than I thought it would be

17. **Overall,** how well did the **benefits** of hormonal therapy (pills) meet your expectations?

☐5	☐4	☐3	☐2	☐1
Much better than my expectations	Somewhat better than my expectations	Met my my expectations	Somewhat worse than my expectations	Much worse than my expectations

18. **Overall,** were the **side effects** of hormonal therapy (pills) as you expected?

☐5	☐4	☐3	☐2	☐1
Much better than I expected	Somewhat better than I expected	Exactly as I expected	Somewhat worse than I expected	Much worse than I expected

19. How satisfied were you with the **form** of your hormonal therapy (pills)?

☐5	☐4	☐3	☐2	☐1
Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied

20. **Overall,** how satisfied were you with your most recent hormonal therapy (pills)?

☐5	☐4	☐3	☐2	☐1
Very satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Very dissatisfied

21. Taking everything into consideration, if given the choice again, would you decide to take this hormonal therapy?

☐5	☐4	☐3	☐2	☐1
Yes, definitely	Probably Yes	I don't know	Probably not	Definitely not

Hospital Anxiety and Depression Scale

HADS

INSTRUCTIONS: Read each item and please select the answer which comes closest to how you have been feeling, on the average, IN THE PAST WEEK.

01. I feel tense or "wound up."
    1. ☐ Most of the time
    2. ☐ A lot of the time
    3. ☐ From time to time, occasionally
    4. ☐ Not at all

02. I still enjoy the things I used to enjoy.
    1. ☐ Definitely as much
    2. ☐ Not quite as much
    3. ☐ Only a little
    4. ☐ Hardly at all

03. I get a sort of frightened feeling as if something awful is about to happen.
    1. ☐ Very definitely and quite badly
    2. ☐ Yes, but not too badly
    3. ☐ A little, but it doesn't worry me
    4. ☐ Not at all

04. I can laugh and see the funny side of things.
    1. ☐ As much as I always could
    2. ☐ Not quite so much now
    3. ☐ Definitely not so much now
    4. ☐ Not at all

05. Worrying thoughts go through my mind.
    1. ☐ A great deal of the time
    2. ☐ A lot of the time
    3. ☐ From time to time but not too often
    4. ☐ Only occasionally

06. I feel cheerful.
    1. ☐ Not at all
    2. ☐ Not often
    3. ☐ Sometimes
    4. ☐ Most of the time

07. I can sit at ease and feel relaxed.
    1. ☐ Definitely
    2. ☐ Usually
    3. ☐ Not often
    4. ☐ Not at all

08. I feel as if I am slowed down.
    1. ☐ Nearly all the time
    2. ☐ Very often
    3. ☐ Sometimes
    4. ☐ Not at all

09. I get a sort of frightened feeling like "butterflies" in the stomach.
    1. ☐ Not at all
    2. ☐ Occasionally
    3. ☐ Quite often
    4. ☐ Very often

10. I have lost interest in my appearance.
    1. ☐ Definitely
    2. ☐ I don't take so much care as I should
    3. ☐ I may not take quite as much care
    4. ☐ I take just as much care as ever

11. I feel restless as if I have to be on the move.
    1. ☐ Very much indeed
    2. ☐ Quite a lot
    3. ☐ Not very much
    4. ☐ Not at all

12. I look forward with enjoyment to things.
    1. ☐ As much as I ever did
    2. ☐ Rather less than I used to
    3. ☐ Definitely less than I used to
    4. ☐ Hardly at all

13. I get sudden feelings of panic.
    1. ☐ Very often indeed
    2. ☐ Quite often
    3. ☐ Not very often
    4. ☐ Not at all

14. I can enjoy a good book or radio or TV program.
    1. ☐ Often
    2. ☐ Sometimes
    3. ☐ Not often
    4. ☐ Very seldom

FACT-B (Version 4)

Below is a list of statements that other people with your illness have said are important. **Please circle or mark one number per line to indicate your response as it applies to the past 7 days.**

	PHYSICAL WELL-BEING	Not at all	A little bit	Some-what	Quite a bit	Very much
GP1	I have a lack of energy	0	1	2	3	4
GP2	I have nausea	0	1	2	3	4
GP3	Because of my physical condition, I have trouble meeting the needs of my family	0	1	2	3	4
GP4	I have pain	0	1	2	3	4
GP5	I am bothered by side effects of treatment	0	1	2	3	4
GP6	I feel ill	0	1	2	3	4
GP7	I am forced to spend time in bed	0	1	2	3	4

	SOCIAL/FAMILY WELL-BEING	Not at all	A little bit	Some-what	Quite a bit	Very much
GS1	I feel close to my friends	0	1	2	3	4
GS2	I get emotional support from my family	0	1	2	3	4
GS3	I get support from my friends	0	1	2	3	4
GS4	My family has accepted my illness	0	1	2	3	4
GS5	I am satisfied with family communication about my illness	0	1	2	3	4
GS6	I feel close to my partner (or the person who is my main support)	0	1	2	3	4
Q1	*Regardless of your current level of sexual activity, please answer the following question. If you prefer not to answer it, please mark this box* ☐ *and go to the next section.*					
GS7	I am satisfied with my sex life	0	1	2	3	4

FACT-B (Version 4)

Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

	EMOTIONAL WELL-BEING	Not at all	A little bit	Some-what	Quite a bit	Very much
GE1	I feel sad	0	1	2	3	4
GE2	I am satisfied with how I am coping with my illness	0	1	2	3	4
GE3	I am losing hope in the fight against my illness	0	1	2	3	4
GE4	I feel nervous	0	1	2	3	4
GE5	I worry about dying	0	1	2	3	4
GE6	I worry that my condition will get worse	0	1	2	3	4

	FUNCTIONAL WELL-BEING	Not at all	A little bit	Some-what	Quite a bit	Very much
GF1	I am able to work (include work at home)	0	1	2	3	4
GF2	My work (include work at home) is fulfilling	0	1	2	3	4
GF3	I am able to enjoy life	0	1	2	3	4
GF4	I have accepted my illness	0	1	2	3	4
GF5	I am sleeping well	0	1	2	3	4
GF6	I am enjoying the things I usually do for fun	0	1	2	3	4
GF7	I am content with the quality of my life right now	0	1	2	3	4

FACT-B (Version 4)

Please circle or mark one number per line to indicate your response as it applies to the past 7 days.

	ADDITIONAL CONCERNS	Not at all	A little bit	Some-what	Quite a bit	Very much
B1	I have been short of breath	0	1	2	3	4
B2	I am self-conscious about the way I dress	0	1	2	3	4
B3	One or both of my arms are swollen or tender	0	1	2	3	4
B4	I feel sexually attractive	0	1	2	3	4
B5	I am bothered by hair loss	0	1	2	3	4
B6	I worry that other members of my family might someday get the same illness I have	0	1	2	3	4
B7	I worry about the effect of stress on my illness	0	1	2	3	4
B8	I am bothered by a change in weight	0	1	2	3	4
B9	I am able to feel like a woman	0	1	2	3	4
P2	I have certain parts of my body where I experience pain	0	1	2	3	4

Measure of Current Status (MOCS):

0 = Strongly Disagree
1 = Mostly Disagree
2 = Neutral--neither agree nor disagree
3 = Mostly Agree
4 = Strongly Agree

1. I am able to use muscle relaxation techniques to reduce any tension I experience
2. I become aware of any tightness in my body as soon as it develops
3. I can clearly express my needs to other people who are important to me
4. I can easily stop and re-examine my thoughts to gain a new perspective
5. It's easy for me to decide how to cope with whatever problems arise
6. I can easily recognize situations that make me feel stressed or upset
7. When problems arise I know how to cope with them
8. I notice right away whenever my body is becoming tense
9. It's easy for me to go to people in my life for help or support when I need it
10. I am able to use mental imagery to reduce any tension I experience
11. I am confident about being able to choose the best coping responses for hard situations
12. I can come up with emotionally balanced thoughts even during negative times
13. I can ask people in my life for support or assistance whenever I need it

Beliefs about Medicines Questionnaire – Adjuvant Endocrine Therapy (BMQ-AET)

BMQ-AET

This next set of questions asks about your personal views about medicines prescribed for your breast cancer.

- These are statements other people have made about their hormonal therapy medication.
- Please indicate the extent to which you agree or disagree with them by placing a cross in the appropriate box.
- There are no right or wrong answers. We are interested in your personal views.
- Please only cross one box per question.

1) I sometimes worry about long-term effects of taking hormone treatment

Strongly agree agree uncertain disagree strongly disagree

2) Having to take hormone treatment worries me

Strongly agree agree uncertain disagree strongly disagree

3) I sometimes worry about having hormone treatment over a long period of time

Strongly agree agree uncertain disagree strongly disagree

4) Taking hormone therapy disrupts my life

Strongly agree agree uncertain disagree strongly disagree

5) Hormone therapy is a mystery to me

Strongly agree agree uncertain disagree strongly disagree

6) Taking hormone treatment makes me feel I am taking positive steps to remain well

Strongly agree agree uncertain disagree strongly disagree

7) Without taking hormone treatment, I would be more likely to develop breast cancer again

Strongly agree agree uncertain disagree strongly disagree

8) My health at present depends on me taking hormone treatment

Strongly agree agree uncertain disagree strongly disagree

9) Hormone treatment protects me from becoming ill

Strongly agree agree uncertain disagree strongly disagree

10) My health in the future will depend on me taking hormone treatment

Strongly agree agree uncertain disagree strongly disagree

Multidimensional Scale of Perceived Social Support (MSPSS)

Multidimensional Scale of Perceived Social Support Instructions:

We are interested in how you feel about the following statements.
Read each statement carefully. Indicate how you feel about each statement.
Circle the "1" if you Very Strongly Disagree
Circle the "2" if you Strongly Disagree
Circle the "3" if you Mildly Disagree
Circle the "4" if you are Neutral
Circle the "5" if you Mildly Agree
Circle the "6" if you Strongly Agree
Circle the "7" if you Very Strongly Agree

1. There is a special person who is around when I am in need. 1 2 3 4 5 6 7
2. There is a special person with whom I can share joys and sorrows. 1 2 3 4 5 6 7
3. My family really tries to help me. 1 2 3 4 5 6 7
4. I get the emotional help & support I need from my family. 1 2 3 4 5 6 7
5. I have a special person who is a real source of comfort to me. 1 2 3 4 5 6 7
6. My friends really try to help me. 1 2 3 4 5 6 7
7. I can count on my friends when things go wrong. 1 2 3 4 5 6 7
8. I can talk about my problems with my family. 1 2 3 4 5 6 7
9. I have friends with whom I can share my joys and sorrows. 1 2 3 4 5 6 7
10. There is a special person in my life who cares about my feelings. 1 2 3 4 5 6 7
11. My family is willing to help me make decisions. 1 2 3 4 5 6 7
12. I can talk about my problems with my friends. 1 2 3 4 5 6 7

Self-Efficacy For Managing Symptoms and Taking AET Questionnaire (Self-Efficacy for Symptoms) (8-item)

Self-Efficacy for Symptoms

We would like to know how confident you are that you can manage symptoms associated with your medication. For each of the following questions, please circle the one number that best describes how certain you are that you can manage each side effect regularly at the present time.

How confident are you that you can decrease or control the side effects of your medication…

1. If you have aches or pains in your muscles or joints?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

2. If you have hot flashes or sweating?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

3. If you feel sad, depressed, or anxious?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

4. If you have difficulty sleeping?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

5. If you feel tired or fatigued?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

6. If you feel bloated?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

7. If you gain weight?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

8. If you experience sexual side effects?

Not at all confident	1	2	3	4	5	6	7	8	9	10	Very confident

Self-Efficacy for Appropriate Medication Use Scale (13-item)

How confident are you that you can take your medications correctly:

When you get a refill of your old medicines and some of the pills look different than usual?
When a doctor changes your medicines?
When you take several different medicines each day?
When you take medicines more than once a day?
When you are away from home?
When you have a busy day planned?
When they cause some side effects?
When no one reminds you to take the medicine?
When the schedule to take the medicine is not convenient?
When your normal routine gets messed up?
When you are not sure how to take the medicine?
When you are not sure what time of the day to take your medicine?
When you are feeling sick (like having a cold or the flu)?

Answer options: Not confident at all, somewhat confident, very confident

Patient-Reported Outcomes Measurement Information System (PROMIS) – Cognitive Function – Short Form 4a

PROMIS Item Bank v2.0 – Cognitive Function- Short Form 4a

Cognitive Function- Short Form 4a

Please respond to each question or statement by marking one box per row.

	In the past 7 days...	**Never**	**Rarely (Once)**	**Sometimes (Two or three times)**	**Often (About once a day)**	**Very often (Several times a day)**
PC2r	My thinking has been slow.....	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
PC35r	It has seemed like my brain was not working as well as usual.....	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
PC36r	I have had to work harder than usual to keep track of what I was doing	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
PC42r	I have had trouble shifting back and forth between different activities that require thinking	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1

CSQ-3 [ONLY AT 12-WEEK POST-BASELINE ASSESSMENT]

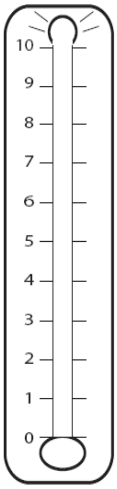
Please help us improve our program by answering some questions about the services you have received. We are interested in your honest opinions, whether they are positive or negative. *Please answer all of the questions.* We also welcome your comments and suggestions. Thank you very much; we really appreciate your help.

1. To what extent has our program met your needs?			
4 Almost all of my needs have been met	3 Most of my needs have been met	2 Only a few of my needs have been met	1 None of my needs have been met
2. In an overall, general sense, how satisfied are you with the skills (e.g. relaxation skills, coping skills) you have learned?			
4 Very satisfied	3 Mostly satisfied	2 Indifferent or mildly dissatisfied	1 Quite dissatisfied
3. If you were to seek help again, would you come back to our program?			
1 No, definitely not	2 No, I don't think so	3 Yes, I think so	4 Yes, definitely

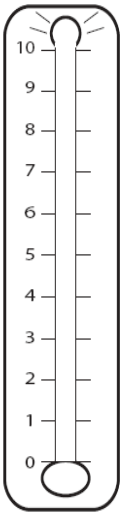
30.18 Patient Screening Questions

Distress Thermometer

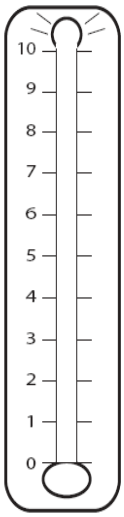
How upset are you by having to take hormonal therapy?
(0 = not upset at all, 10 = extremely upset)



How bothered are you by symptoms or side effects?
(0 = not bothered at all, 10 = extremely bothered)



How difficult is it for you to take your hormonal therapy medication every day?
(0 = not difficult at all, 10 = extremely difficult)



30.19 Session Acceptability Measure

Rate the following on a scale of 1-4 (1 = quite dissatisfied, 2 = mildly disappointed, 3 = mostly satisfied, 4 = very satisfied)

How satisfied are you with the amount of time (60 minutes) spent on each session?

How satisfied are you with the number of sessions (5) that you received?

How comfortable were you in the group sessions?

How satisfied were you with the virtual delivery (videoconference) of the sessions?

How satisfied are you with the length of the study questionnaires you completed?

Is there anything else that you would have liked to cover in these sessions? [Following are open-ended]

Is there anything that you found helpful?

Is there anything that you found to be unhelpful?

30.20 Remuneration Form

DF/HCC Protocol #XX-XXX

Remuneration Form

Participant Name_____

Participant MRN_____

SSN or ITIN_____

Mailing Address_____

_____

_____

For study team:

☐ Baseline Questionnaires - $20 Date completed: _____

☐ 12-week Post Questionnaires - $20 Date completed: _____

☐ 24-week Post Questionnaires - $20 Date completed: _____

Date paid: _____

30.21 EIC REDCap Invitation

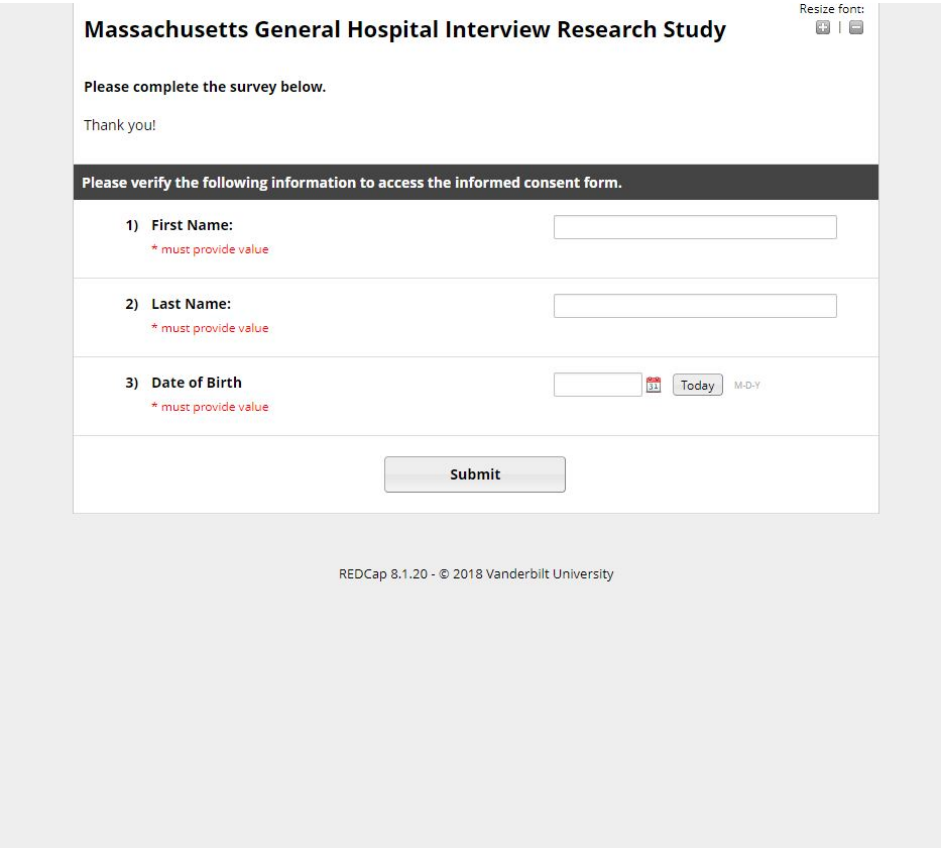
Subject: MGH STRIDE Study

Dear [patient name],
Thank you for your interest the STRIDE study at Massachusetts General Hospital! Please click the link below to access the informed consent form.

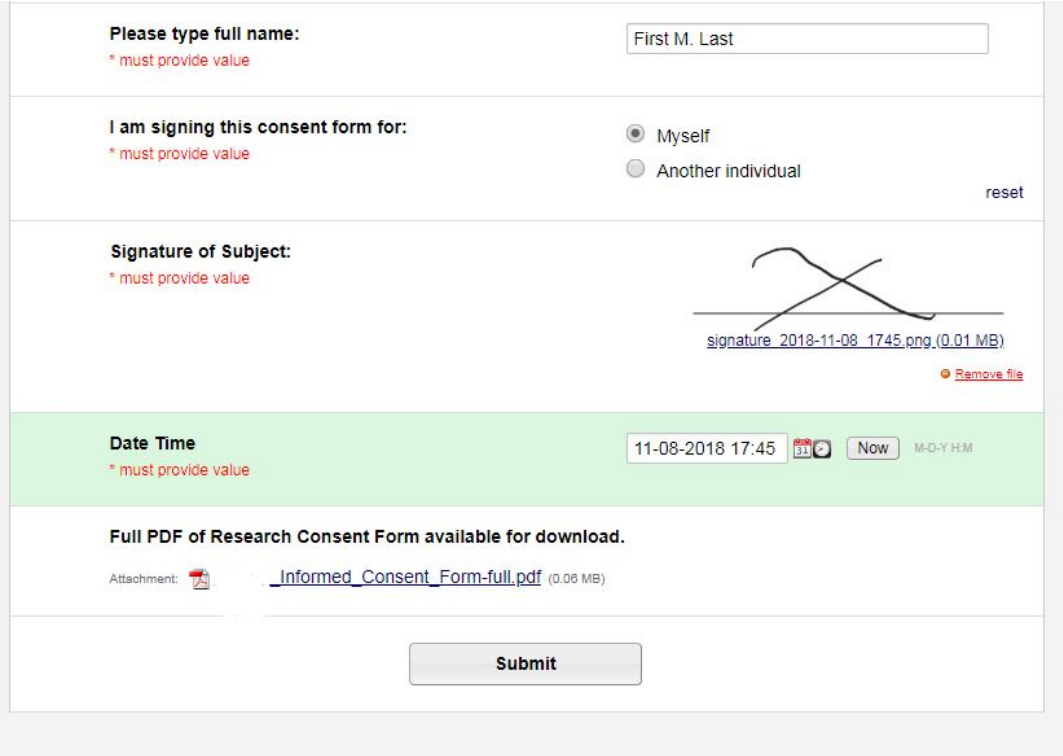
Thank you,
[study staff member]
[study staff contact information]

30.22 EIC REDCap Portal Screen Captures

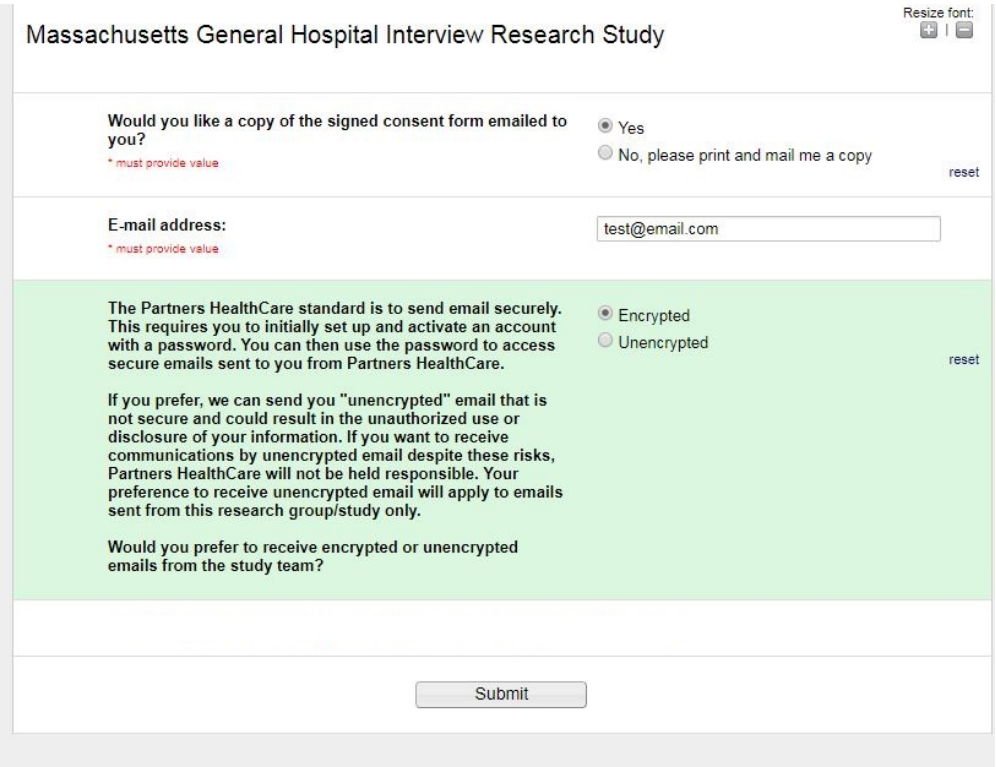
Portal Entry:



Digital Signature:



Consent Copy Form:



30.23 Source Document Certified Copy Cover Sheet

MASSACHUSETTS
GENERAL HOSPITAL

Cancer Outcomes Research Program (CORe)
Yawkey Building, Suite 10B
32 Fruit Street, Boston, MA 02114

Source Documentation – Certified Copy Cover Sheet

Type of Document: _____
Pages (including cover sheet): _____

This form serves to verify that the following scanned copy is of the exact original document, includes all pages, is legible, and confirms all wet-ink signatures.

Location Scanned: _____

Time & Date Scanned: _____

Scanned by:

_____ _____
Signature *Date*

_____ _____
Printed *Title*

30.24 Supplemental Medication Diary

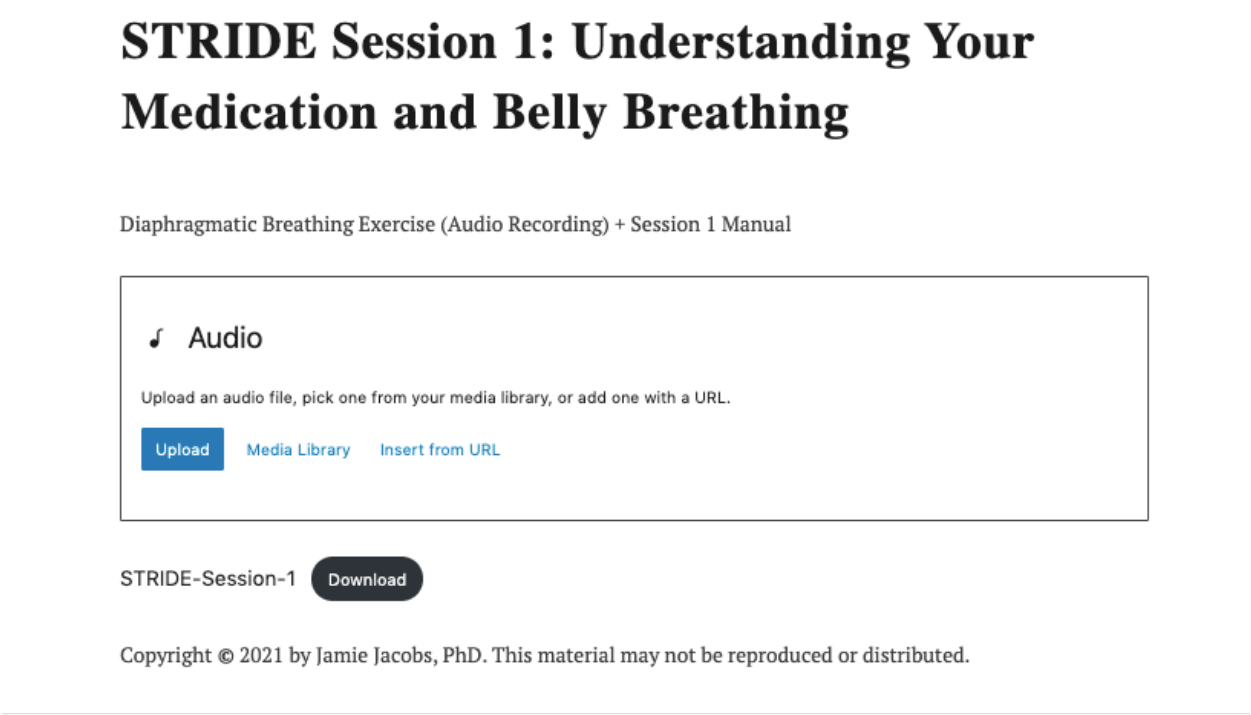
Please record any day you take a dose of medication *without opening the pill bottle cap* with a brief explanation. For example, taking two doses out of the bottle at the same time and keeping one in your pocket for a later time.

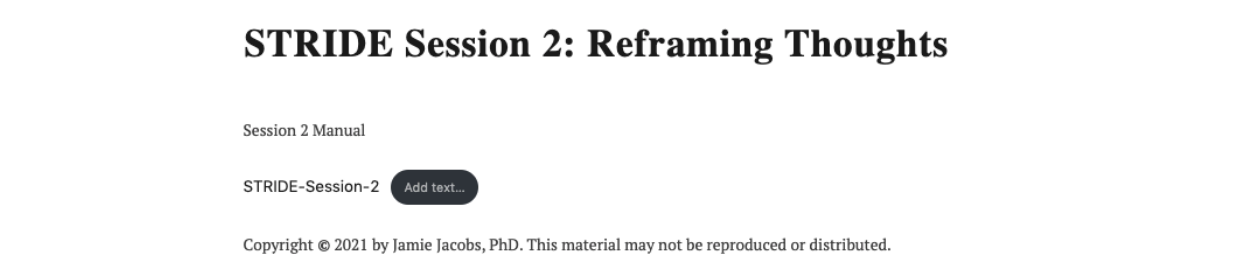
Month:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Satruday
Example: *12/1 Refilled prescription, took one prior to refilling electronic pill bottle*						

30.25 MEMS Participant Instructions

30.26 Relaxation Recording Website (Screenshots)





STRIDE Session 3: Coping & Mindfulness

Body Scan Exercise (Audio Recording) + Session 3 Manual

STRIDE-Session-3 Download

STRIDE Session 4: Managing Side Effects & Progressive Muscle Relaxation

Progressive Muscle Relaxation (Audio Recording) + Session 4 Manual

STRIDE-Session-4 Download

STRIDE Session 5: Managing Side Effects & Acceptance

Acceptance Exercise (Audio Recording) + Session 5 Manual

STRIDE-Session-5 Download

STRIDE Session 6: Managing Side Effects & Coping with Fears

Guided Visual Imagery Exercise (Audio Recording) + Session 6 Manual

STRIDE-Session-6 Download

30.27 Approach Chart Flyer

FOR CLINICIAN ONLY:
Reminder that a research assistant will be approaching this patient for participating in a supportive care study for endocrine therapy.

Please remember to let the patient know about the approach and recommend participation if appropriate.

30.28 ECOG Screener

Performance Status Questionnaire

Which of the following functional ratings best describes your past week?
(Please Choose ONE)

	Description
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in psychically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g. light house work, office work
2	Ambulatory and capable of all selfcare but unable to carry out any work activities. Up and about more than 50% of waking hours
3	Capable of only limited selfcare, confined to bed or chair more than 50% of waking hours
4	Completely disabled. Cannot carry on any selfcare. Totally confined to bed or chair

30.29 Study Introduction Note Content

[This general content will be included with participants' MEMs bottle at the start of the study, prior to randomization, to introduce them to the study and study team and may be tailored further during the study run-in phase.]

The STRIDE Study
Massachusetts General Hospital
55 Fruit Street
Yawkey Center, Suite 10B
Boston, MA 02114
(617) 643-1777

[Patient Name]
[Patient Address]
[Patient Address]

Dear [Patient Name],

Thank you so much for your participation in the STRIDE study!

You can find the pill bottle that we spoke of enclosed here. Please place all your hormonal therapy pills in the bottle (and do this each time you refill your medication) and continue taking it as usual. Enclosed are instructions on how to use the pill bottle.

If you have an instance where you do not use the pill bottle for whatever reason, please use the enclosed medication log to note the day you took the medication.

Please feel free to contact me at [study coordinator email] or [study coordinator phone number]. Alternatively, you can also contact the principal investigator of the study, Dr. Jamie Jacobs, at jjacobs@mgh.harvard.edu or at 617-643-1777 with any related questions.

Sincerely,

Jamie Jacobs, Ph.D.

[Study coordinator signature]

[Study Coordinator]

30.30 Telehealth How-to

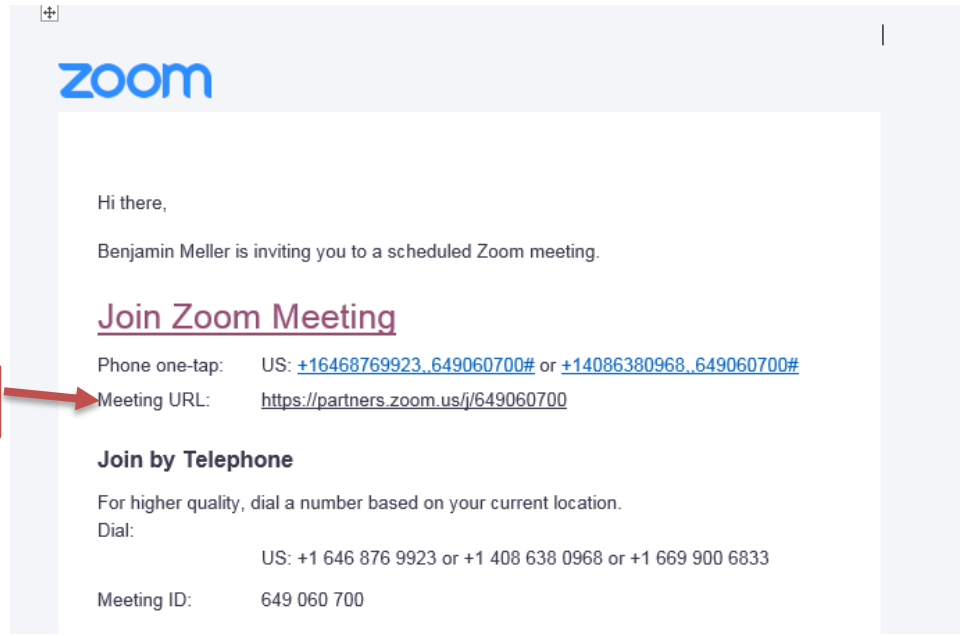
[This content will be given to intervention-arm participants to instruct them on Telehealth use.]

Welcome and thank you for your participation in the STRIDE study! The following steps are to help you download and prepare for your upcoming virtual STRIDE sessions.
If you ever have difficulty getting into a virtual group session, please reach out to our study staff, at [study staff contact info], who will be on-call to assist you.

To join the virtual group session:

Step 1: Join session via email

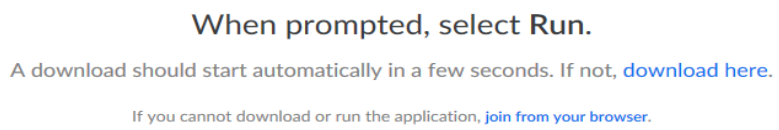
Our study staff will send you a unique link over email to join the videoconference for each session.
The email should look like the image below.
Once you have received it, click "Join Zoom Meeting"



Click

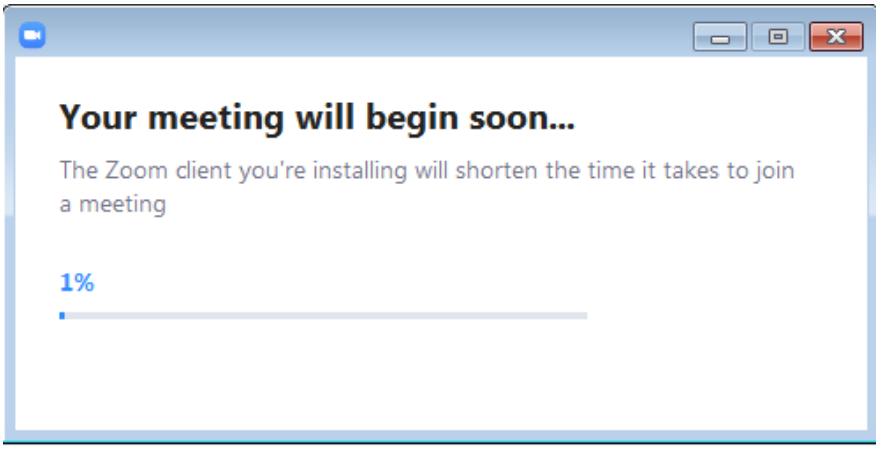
Step 2: Click "Run" and wait for Zoom to download

After clicking the link, a box like the one shown below will appear.



Choose to "run" the program to download the videoconference from your internet browser.

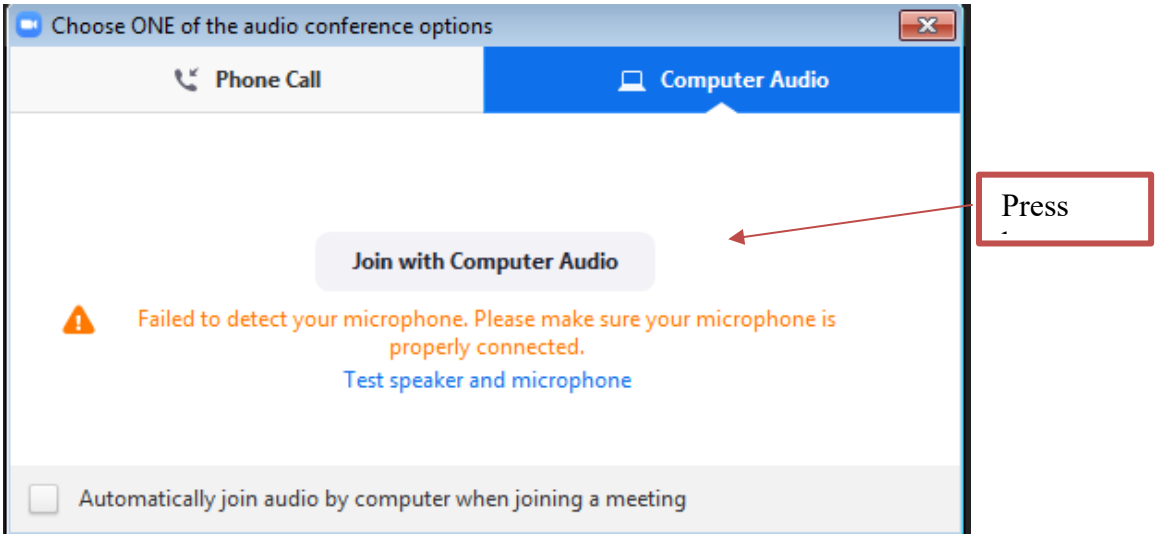
After selecting “Run”, a loading box should appear like this:



Wait for the meeting to fully load.

Step 3: Press “Join with Computer Audio”

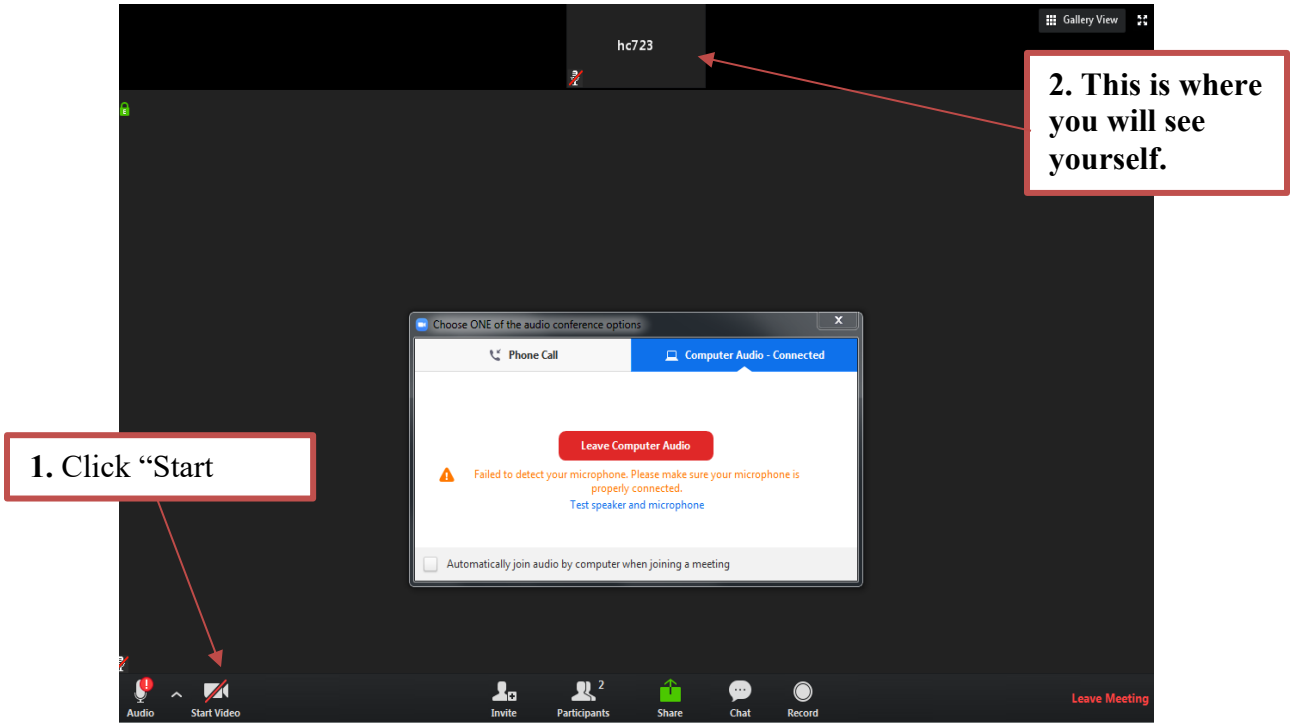
Once fully loaded, Zoom will ask you to select a username.
After typing a username of your choice, a box like this will appear:



Press “Join with Computer Audio”
Make sure you are under “Computer Audio” and do not press “Phone Call”

Step 4: Starting the session

Once you have completed the steps above, your screen should look something like this:



Press "Start Video" to join the videoconference session.

If you see a symbol like this on the bottom corner of your screen…

And you're all set!

Have any issues?

Text the study team at (857) 776-4611

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