FEASIBILITY OF IMPLEMENTING A GROUP INTERVENTION FOR TRANSDIAGNOSTIC REPETITIVE NEGATIVE THINKING IN PRIMARY CARE

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Abstract

Theoretical conceptualizations of psychopathology have shifted from categorical toward dimensional models, prompting a parallel shift toward transdiagnostic approaches to treatment. Repetitive negative thinking (RNT) is a transdiagnostic construct defined as cognitive perseveration on negative themes (e.g., worry and rumination) and has been implicated in the etiology and maintenance of several disorders including depression, generalized anxiety, and social anxiety. Group metacognitive therapy (MCT) has been shown to be effective in treating RNT across diagnoses in specialty mental health settings. Research is limited regarding the implementation of transdiagnostic group treatments in settings outside of specialty mental healthcare settings. The current study sought to explore the feasibility and effectiveness of implementing a group MCT program to address RNT in a primary care setting. Despite active recruitment attempts, the study enrolled only two participants in a family medicine practice with complaints related to RNT. Participants completed six 1.5 hour MCT group sessions and completed outcome measures at pre-treatment, post-treatment, and 4-week follow-up. Primary outcomes were engagement with RNT, anxiety, and depression. Results suggested that group metacognitive therapy delivered in primary care may be effective at decreasing engagement with RNT and improving symptoms of anxiety and depression, as evidenced by the two participants' improvements on all outcome measures; however, there were significant difficulties with participant recruitment, calling into question the validity of the findings and the feasibility of such a treatment program. Limitations and future directions are discussed, emphasizing specific recommendations for improving recruitment procedures.

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Lastly, I thank my participants. It was a joy to work with you, and I respect so much the courage it takes to speak about your struggles in front of strangers. You're both inspirational.

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Much work has been done in the past two decades to shift understanding of psychopathology from a discrete, categorical model to a more continuous, dimensional model. While criticism of categorical models in favor of dimensional models is not a new phenomenon regarding classification of mental illness (Brown & Barlow, 1992; Kendell, 1975; Trull, Widiger, & Guthrie, 1990), the field has only recently begun to investigate the application of these ideas to treatment. Barlow, Allen, and Choate (2004) asserted that multiple anxiety and unipolar depressive disorders possess sufficient common factors to warrant questioning the utility of treating the two disorders with unique interventions. With this newly-developed transdiagnostic conceptualization of what they termed "Negative Affect Syndrome," Barlow et al. proposed a unified treatment protocol designed to target this new construct. Utilizing interventions from cognitive behavior therapy (CBT) including psychoeducation, self-monitoring, cognitive reappraisal, and behavioral activation, the Unified Protocol for Transdiagnostic Treatment of Emotional Disorders has successfully treated patients suffering from a variety of disorders (Barlow et al., 2017; Ellard, Fairholme, Boisseau, Farchione, & Barlow, 2010; Farchione et al., 2012).

Barlow et al.'s 2004 paper has triggered a new focus on transdiagnostic approaches to treating behavior disorders. Norton and Paulus (2015) have subsequently classified approaches to transdiagnostic treatment as either pragmatic or theory-driven. Pragmatically-generated transdiagnostic interventions are the result of clinical experience and consensus regarding interventions that are effective at addressing a variety of difficulties (e.g. exposure for both specific phobias and social anxiety). Theory-driven approaches begin with identifying underlying processes of a number of disorders, often through the use of dismantling studies or component analyses, and proceed to develop interventions targeting the identified

transdiagnostic mechanisms. Repetitive negative thinking (RNT) is one such mechanism that has arisen from the theory-driven approach.

Repetitive Negative Thinking

Research exploring connections between some of the characteristic cognitive symptoms found in depression, generalized anxiety, and social anxiety, namely rumination and worry, led to the development of RNT as an explanatory construct (Watkins, 2008; Watkins, Moulds, & Mackintosh, 2005). Looking beyond the surface level content of such symptoms, Ehring and Watkins (2008) have identified and described this type of negative thinking as: repetitive, hard to control, negative in content, mostly verbal, and prone to metacognitions (e.g. worrying about worry or ruminating about rumination). Because the observed differences between the symptoms of these various disorders were largely superficial (e.g. differences in specific content), researchers concluded that a transdiagnostic mechanism was at work and labeled it RNT. Repetitive negative thinking has since been operationalized as "cognitive perseveration on negative themes" (McEvoy et al., 2015, p. 124). With this new transdiagnostic mechanism identified, researchers began to explore possible interventions that would target RNT.

In many cases, the discovery of a potential transdiagnostic mechanism leads to the development of a novel treatment designed to target the identified mechanism. For example, the principles of experiential avoidance and cognitive inflexibility/fusion led directly to the development of acceptance and commitment therapy (Hayes, Strosahl, & Wilson, 1999; Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). In other cases, however, existing treatments can be adapted to focus on an identified transdiagnostic mechanism. Such was the case when metacognitive therapy (MCT; Wells, 1995), a treatment developed for generalized anxiety disorder (GAD), was adapted as a treatment for RNT.

Metacognitive Therapy as a Treatment for RNT

Operating from the knowledge that RNT appeared to be a common factor in several disorders, McEvoy et al. (2015) used a brief, group-based MCT treatment for patients with a primary or non-primary diagnosis of GAD in a community clinic. To further support the inclusion of diagnostically-diverse patients, the researchers cited the historically-poor external validity of traditional efficacy research due to strict exclusionary criteria for comorbid disorders. McEvoy et al. identified engaging in metacognition, a characteristic of RNT, as a potential explanatory variable for much of the maladaptive behavior seen in disorders such as depression and GAD. The researchers described a metacognition-based model in which individuals initially engage in RNT due to positive beliefs about its utility (e.g. "worry helps me focus" or "ruminating helps me figure out what to do next time"). Soon after establishing a pattern of RNT, negative beliefs about RNT (e.g. "worry is going to give me a heart attack" or "ruminating is taking over my life") lead to ineffectual or maladaptive efforts to escape the now-aversive thought process, such as thought suppression, avoidance, or increased engagement with RNT (in an effort to obtain the originally-anticipated positive outcome). Because MCT directly addresses these positive and negative metacognitions, McEvoy et al. determined it to be a candidate for addressing RNT. Following 6 sessions of group MCT and a single follow-up session, participants were found to have experienced clinically-significant improvements in reported engagement with RNT. Additionally, and in support of the validity of RNT as a transdiagnostic construct, patients experienced statistically significant improvements in diagnosis-specific symptoms as well (i.e. BDI-II, BAI, and PANAS -NEG and -POS scores). The current study seeks to replicate McEvoy et al.'s study in a novel context: a primary care clinic.

Integrating Behavioral Health Services into Primary Care

Numerous studies have revealed that only a minority of people receive behavioral health services from specialty behavioral health clinics (Olfson, 2016; Wang et al., 2005; Wang et al. 2006) and that this pattern is long-standing (Regier, Goldberg, & Taube, 1978). Several attitudes and beliefs have been identified as barriers to seeking specialty mental health treatment, including: low perceived need for treatment, lack of belief in the efficacy of mental health treatment, and stigma surrounding mental health problems (Olfson, 2016). Additionally, factors endemic to US healthcare systems can serve as barriers to establishing care with specialty behavioral health services (e.g. low rates of reimbursement by insurance providers, limited provider networks) in a way that is not encountered in primary care

In addition to traditional behavioral health concerns (e.g. anxiety and depression) presenting in primary care medical settings, there are many somatic complaints (e.g. obesity, irritable bowel syndrome, headaches, insomnia, or muscle tension) in which psychological or behavioral factors frequently contribute to onset and maintenance. A classic study showed that, of the 14 most common complaints in a primary care clinic, a full 84% showed no clear organic etiology at the time of the visit or over a 3-year follow up period (Kroenke & Mangelsdorff, 1989). While behavioral health services may be helpful adjuncts to the treatment of such health-related problems as these, it is uncommon to find specialty behavioral health settings in which such difficulties can be addressed.

To address these underserved populations, a movement has begun to integrate behavioral health services with primary care. Research done on the effectiveness of such practices has shown improved patient outcomes in psychological and non-psychological domains (Rollman et al., 2005; Roy-Byrne et al., 2010). Behavioral health integration can take many forms, one of

which is a relatively new role for mental health professionals in primary care clinic settings known as a behavioral health consultant (BHC) (Weisberg & Magidson, 2014). Behavioral health consultants provide real-time consultation to PCPs and patients with concerns including: treatment adherence, medication side-effect management, weight loss, smoking cessation, and other health-related difficulties that may benefit from behavioral health interventions in addition to assessing for, triaging, and often treating psychopathology. Many integrated care settings have begun to follow a model exemplified by the Department of Veterans Affairs (Post, Metzger, Dumas, & Lehmann, 2010; Zeiss & Karlin, 2008) with a focus on time-limited behavioral health services and the use of empirically-supported interventions (most often CBT).

Integrated Primary Care and Anxiety Disorders

A meta-analysis by Seekles et al. (2013) found a moderate effect size for the psychological treatment of anxiety disorders in primary care settings. The researchers reported that anxiety disorders were of particular interest due to high rates of presentation in primary care settings. An examination of symptoms appearing across anxiety disorders can provide insight as to why this occurs. Symptoms of acute anxiety (i.e. panic), including shortness of breath, changes in heart rate, and paresthesia, are frequently mistaken for symptoms of a physical illness (e.g. heart or asthma attack, stroke, etc.) by patients. Some symptoms associated with generalized anxiety, including muscle pain, headaches, and insomnia, also superficially appear to be biologically based. Seekles et al. (2013) also noted that patients who were identified as anxious and subsequently connected with a BHC for in-house treatment fared better than those who were referred out for specialty services, indicating that more focus should be directed toward implementing evidence-based treatments delivered by BHCs. Unfortunately, this practice has encountered several obstacles.

Shepardson, Funderburk, and Weisburg (2016) summarized three primary obstacles to implementing empirically-supported treatments for anxiety in primary care. First, most treatment protocols tend to be diagnosis-specific. Due to the nature of primary care clinics, patients do not routinely receive comprehensive diagnostic evaluations for psychopathology, resulting in no diagnosis or an unspecified diagnosis. Second, many patients identified in primary care clinics as anxious present with varying levels of symptomatic complexity, ranging from subthreshold for any specific anxiety disorder to high levels of comorbidity across anxiety and mood disorders. Third, standard protocols tend to be designed for higher levels of frequency and duration (e.g. 10 sessions for 1 hour each) than can reasonably be expected in a primary care setting where organizational norms and the needs of the population necessitate brief, time-limited interventions. The authors suggested that work be done to adapt existing treatments to meet these unique challenges and indicated that transdiagnostic approaches may be a good starting point.

Replicating and Extending McEvoy et al., 2015

The present study seeks to explore the feasibility of following the recommendations of Seekles et al. (2013) while addressing the problems described by Shepardson et al. (2016) through attempting to implement a brief, empirically-supported, group-based, transdiagnostic intervention (McEvoy et al., 2015) in a primary care setting. This particular intervention was selected due to its brevity (6 sessions with 1 follow up), its closeness of fit with Shepardson et al.'s list of techniques that can be easily adapted for primary care (i.e. psychoeducation, mindfulness/acceptance, relaxation training, exposure, cognitive restructuring, and behavioral activation), and the inherent efficiency of group-based treatment over individual care. A review of the current literature (search terms: GROUP, ANXIETY, PRIMARY CARE, and

TRANSDIAGNOSTIC) revealed only 4 studies with a similar research question (Ejeby et al., 2014; Kristjansdottir, Salkovskis, Sigurdsson, Sigurdsson, Agnarsdottir, & Sigurdsson, 2016; Sundquist et al., 2015; & Morris et al., 2016), none of which used MCT as the intervention.

Hypotheses

1. The intervention will be acceptable to patients in a primary care setting as evidenced by greater than 75% of patients attending at least 5 of the 6 sessions.
2. The intervention will be associated with significant reductions in engagement with RNT.
3. The intervention will be associated with significant reductions in symptoms of anxiety and depression.

Method

Setting

The setting for the current study was a family medicine practice affiliated with a university medical school in an urban, downtown location. The clinic is staffed by family medicine residents and faculty and serves approximately 8,500 unique individuals with approximately 16,000 total visits in a given year. Seventy-eight percent of patients are between 18-65 years of age, the majority of whom work in the area; however, many patients have long commutes to work and do not live near the practice, choosing to establish care because of the proximity to their workplace rather than their homes. Approximately 25% of the patients live nearby, and many of these patients are classified as low-income. Behavioral health services have been offered at this location using an integrated care model for approximately 7 years. Behavioral health consultants are primarily clinical psychology students completing their doctorates at a nearby university.

Participants

Participants were patients seen at the family medicine practice identified as struggling with RNT. Recruitment efforts included posters prominently displayed throughout the practice, requests for referrals from PCPs and BHCs, and outreach using the waitlist for behavioral health services. The recruitment period lasted 14 weeks. In total, 11 patients contacted the author to inquire about the group: 4 patients were referred by BHPs, 2 patients were contacted by the author from the waitlist, and 5 patients were self-referred. Six of the patients who contacted the author to express interest in the group failed to return follow-up phone calls or emails after their initial contact. Five patients were screened for inclusion and exclusion criteria: 1 patient was unable to attend any of the possible group times and was referred to the behavioral health service for individual psychotherapy & 4 patients provided informed consent and agreed to participate. Of the 4 consented patients: 1 patient did not return calls when the time came for groups to be scheduled and did not participate in the group, 1 patient indicated that their schedule had changed and could no longer attend any of the possible group times, and 2 patients proceeded to participate in the group. Participant 1 was a 40-year-old female with a high school diploma, and Participant 2 was a 33-year-old male with a doctoral degree.

Inclusion criteria. Participants must be English-speaking adults with either primary or non-primary complaints related to RNT (e.g. worry, rumination). There were no requirements regarding diagnosis.

Exclusion criteria. Potential participants were excluded if they endorsed symptoms that posed a potential risk to their safety, the safety of others, or the effective implementation and facilitation of the group. Examples included active suicidal or homicidal ideation with intent or plan within the last month, history of suicidal or homicidal behaviors in the last 3 years, current

psychotic symptoms, current substance abuse, and unmanaged bipolar disorder. Potential participants were also excluded if they were currently receiving cognitive behavior therapy (CBT) specifically focusing on their RNT symptoms due to significant areas of overlap between the two treatments. Concurrent individual treatment not explicitly focusing on RNT symptoms was permitted.

Measures

An emphasis was placed on using brief measures to reduce the burden on participants, particularly because they were asked to complete many of them 3 separate times.

Penn State Worry Questionnaire (PSWQ). The PSWQ (Meyers, Miller, Metzger, & Borkovecet, 1990) is a 16-item measure of disordered worry primarily used in the assessment of GAD and shown to have high internal consistency and good test-retest reliability. Various worry-related statements are rated from 1 to 5 with 1 being "not at all typical of me" and 5 being "very typical of me." Scores can range from 16 to 80.

Repetitive Thinking Questionnaire (RTQ-10). The RTQ-10 (McEvoy, Thibodeau, & Asmundson, 2014) is a 10-item, shortened version of a well-established, transdiagnostic measure of RNT (McEvoy, Mahoney, & Moulds, 2010) with a demonstrated ability to differentiate clinical and non-clinical populations. The items ask participants to rate statements from 1 to 5 with 1 being "not true at all" and 5 being "very true" regarding their thinking in distressing situations. Scores can range from 10 to 50.

Generalized Anxiety Disorder Screener (GAD-7). The GAD-7 (Spitzer, Kroenke, Williams, & Löwe, 2006) is a 7-item measure of GAD assessing the frequency of several symptoms of GAD that can be used for diagnostic purposes. The instrument has been found to

have excellent test-retest reliability and internal consistency. Scores can range from 0 to 21 with a clinical cutoff of 10.

Patient Health Questionnaire (PHQ-9). The PHQ-9 (Kroenke, Spitzer, & Williams, 2001) is a 9-item scale measuring depression severity assessing the frequency of several depressive symptoms that can be used for diagnostic purposes. The internal reliability and test-retest reliability are excellent, and construct validity has been established through numerous strong correlations with established measures of depression. Scores can range from 0 to 27 with a clinical cutoff of 10.

Demographic questionnaire. Information was collected from participants on their age, gender identity, and highest attained education level.

Procedure

Interested patients contacted the author by phone or email to request more information about the group. Some patients were also given information about the program via waitlist recruitment. Potential participants then completed a brief phone screening with the author to assess for inclusion and exclusion criteria by obtaining information about the nature of the presenting problem, conducting a risk assessment, and obtaining information about relevant non-RNT symptoms. Patients unable to participate were connected with BHCs for individual psychotherapy. Eligible participants met with the author at the clinic to provide informed consent and received a signed copy of the informed consent form. Participants provided information about availability and were placed on a waitlist until the end of the recruitment period; groups would have begun earlier in the process if more patients had been recruited. Groups were held at the family medicine practice weekly for 1.5 hours. Pre-treatment measures were given at the beginning of session 1, and post-treatment measures were given after the end

of session 6. Follow up measures were received electronically 4 weeks after session 6. The group facilitator met weekly for supervision with the on-site supervisor.

Intervention. The group MCT protocol (Anderson & Campbell, 2011) consists of 6 two-hour sessions and 1 four-week follow up session. Adherence to the protocol was enhanced by the use of a treatment manual containing specific notes for clinicians in addition to standardized handouts and worksheets for participants. Groups were adapted to last 1.5 hours rather than the 2 recommended in the protocol to more closely match the needs of clients in primary care settings (Weisberg & Magidson, 2014). The author facilitated all treatment groups.

Session 1 provides psychoeducation about worry and rumination while conceptualizing both as part of RNT. Maintaining factors are discussed with examples elicited from participants. Self-monitoring homework is assigned. Session 2 focuses on challenging the belief that RNT is uncontrollable with both evidence testing and a behavioral experiment given as homework. Attention training is also introduced via mundane task focusing and mindfulness to increase attentional flexibility.

Session 3 begins with an attention training exercise before focusing on challenging the belief that RNT is dangerous with both evidence testing and a behavioral experiment. Unlike the behavioral experiment prescribed in session 2, group members generate ideographic experiments to test their individual beliefs. Participants are also given suggestions for critically evaluating information (e.g. how to investigate the source of a worrisome Facebook post). Session 4 begins with an attention training exercise before focusing on challenging positive beliefs about RNT through evidence testing and assignment of a behavioral experiment as homework.

Session 5 begins with an attention training exercise before introducing problem solving as an alternative to RNT. Homework is assigned to continue using strategies discussed thus far

with the addition of problem solving. Session 6 consists primarily of a review of the concepts discussed over the past 5 sessions. Participants work to make a self-management plan to help with relapse prevention. The 4-week follow up session was left out of the current study in favor of 4-week data collection due to logistical factors making it impossible for the author to meet with participants.

Data Analysis

Because of the small number of participants (n = 2), the use of descriptive or inferential statistics would not add to the understanding of the obtained results; therefore, results will be reported in terms of raw data for each participant.

Results

Acceptability

Both participants attended every session, demonstrating a high level of acceptability. On the overall satisfaction item of the satisfaction survey, Participant 1 gave the group a rating of 10, and Participant 2 gave the group a rating of 5. On the comfort level item, Participant 1 gave the group a rating of 10, and Participant 2 gave the group a rating of 8. On the convenience item, Participant 1 gave the group a rating of 10, and Participant 2 gave the group a rating of 10. When asked to describe the most helpful aspects of the group, Participant 1 identified learning coping skills, the postponement exercise, and mindfulness. Participant 2 identified the homework exercises (particularly the postponement exercise), the use of humor, and the mindfulness exercises. When asked to describe things they would like to see changed about the group, Participant 1 did not identify any areas for improvement. Participant 2 expressed a dislike for the evidence testing intervention, stating that he occasionally felt that things he said were

"contorted, rephrased, or repurposed to confirm, validate, or … vindicate outcomes [the facilitator was] looking for."

Engagement with RNT

Both participants experienced reductions in engagement with repetitive negative thinking, as evidenced by lowered scores on the RTQ-10 and the PSWQ from pre-treatment to post-treatment and pre-treatment to follow-up. Results are shown in Figures 1 and 2 for participants 1 and 2, respectively. Participant 1 showed continued improvement in engagement with repetitive negative thinking on both measures from post-treatment to follow-up. Participant 2 worsened in engagement with repetitive negative thinking on both measures from post-treatment to follow-up, although his follow-up scores remained lower than his pre-treatment scores. The RTQ-10 does not have established norms for classification/interpretation of scores; however, on the PSWQ, Participant 1 improved from High Worry to the low end of Moderate Worry at post-treatment and follow-up. Participant 2 improved from High Worry to Moderate Worry at post-treatment but returned to High Worry at follow-up.

Depression and Anxiety

Both participants experienced reductions in depression and anxiety, as evidenced by lowered scores on the GAD-7 and PHQ-9 from pre-treatment to post-treatment. Results are shown in Figures 3 and 4 for participants 1 and 2, respectively. Participant 1 showed continued improvement in depression and anxiety from post-treatment to follow-up. Participant 2 worsened in depression and anxiety from post-treatment to follow-up. His anxiety score at follow-up remained below its pre-treatment level, but his depression score at follow-up was higher than its pre-treatment level. On the GAD-7, both participants improved from Moderate Anxiety to Low Anxiety at post-treatment. Participant 1 continued to improve to below Low

Anxiety at follow-up. Participant 2 remained at Low Anxiety at follow-up. On the PHQ-9, Participant 1 improved from Moderately Severe Depression to Low Depression at post-treatment and continued to improve to below Low Depression at follow-up. Participant 2 scored below Low Depression at both pre- and post-treatment and scored at threshold for Low Depression at follow-up.

Discussion

This study aimed to investigate the feasibility, acceptability, and effectiveness of implementing a brief, empirically-supported, group-based intervention for transdiagnostic repetitive negative thinking in a primary care setting. The first hypothesis regarding acceptability was supported, as both participants attended every session and reported moderately high levels of satisfaction. The second hypothesis, that participants would decrease engagement with RNT, was supported. Scores on both measures of RNT decreased from pre- to post-treatment with improvements continuing to be seen at 4 weeks. The third hypothesis, that participants would experience reductions in symptoms of anxiety and depression, was also largely supported. Scores on measures of anxiety and depression decreased from pre- to post-treatment and were maintained at 4 weeks for one participant but did not persist for the other participant with regard to depression. Group metacognitive therapy delivered in primary care may be effective at decreasing engagement with RNT and improving symptoms of anxiety and depression, as evidenced by participants' improvements on all outcome measures; however, there were significant difficulties with participant recruitment, calling into question the validity of the findings and the feasibility of such a treatment program.

Limitations

The most significant limitation of the current study is the sample size (n=2). A sample size this small results in insufficient power to detect the presence of a significant treatment effect and restricts the generalizability of the findings. The lack of a control condition also restricts consideration of causal conclusions. Because participation in the group was the exception rather than the rule among patients contacted, it is possible that some unmeasured variable (e.g. patient motivation) set the two participants apart in a way that could account for the observed results. The current study should be viewed as a pilot feasibility study of the implementation of the treatment group in primary care rather than an analysis of the effectiveness of the intervention itself.

Feasibility

Group-based interventions have been successfully delivered in primary care settings for problems including, but not limited to, diabetes (Dontje & Forrest, 2011; Eisenstat, Ulman, Siegel, & Carlson, 2013), insomnia (Sandlund, Hetta, Nilsson, Ekstedt, & Westman, 2017), and back pain (Saunders, Von Korff, & Grothaus, 2000). Moreover, various psychological problems have also been successfully treated using group-based interventions in primary care (Craner, Sawchuk, & Smyth, 2016; Ejeby et al., 2014; Kristjansdottir et al., 2016; Morris et al., 2016; Sundquist et al., 2015), suggesting that the approach is not, in and of itself, infeasible. It is likely that the question of feasibility for transdiagnostic group treatments in primary care is highly influenced by contextual factors including: demographics of the patient population, physical location of the practice, distance from home or work, availability of specialty behavioral health options, and more. For the purposes of this study, a deeper exploration of factors potentially impacting participant recruitment may provide future directions for more successful

implementation of group MCT in primary care. Participants were recruited for the group over 14 weeks through three primary methods: self-referral via posters located throughout the practice, referral by providers in the clinic (both physicians and BHPs), and outreach via the behavioral health waiting list.

Recruitment period. A review of similar group interventions in primary care that were delivered successfully revealed three studies that provided information about their recruitment period lengths: 2 years (Roy-Byrne et al., 2010), 1.5 years (Ejeby et al., 2014), and 3 months (Sundquist et al., 2015). It is likely, then, that recruitment for a new group in a setting that does not typically offer group-based services would take much longer than the 14 weeks used in the current study. Closer review of Sundquist et al.'s (2015) recruitment procedures reveals a potential explanation for their ability to recruit in such limited time; participants were recruited through universal screening—every patient who called the clinic for services was screened for inclusion and was connected with a provider for consenting, if appropriate. Given more time to establish the MCT group in the practice, it is possible that recruitment may have not been a limitation at all.

Posters. The posters used for recruitment were designed by the author and approved by the site supervisor and the university's IRB (see Appendix). Eighteen posters were displayed throughout the clinic, one in each of the exam rooms and others in high-traffic areas including the waiting room and nurses' stations. Each poster had 9 pull-tabs with contact information for the author. Of the 144 available pull-tabs, 82 (~57%) had been taken during the recruitment period (3.25 months), suggesting that patients were interested in the program. Despite this apparent interest, only 6 patients indicated that they contacted the author because of the posters. There are a number of possible explanations for this disparity between interest and action.

Patients may have simply misplaced the small pull-tabs. Patients may have changed their minds about participating. The target population of recruitment efforts was, in part, patients with anxiety disorders; it is possible that these patients would be reluctant to contact an unfamiliar person because of their heightened anxiety. Similarly, patients with mood disorders may have been struggling with low motivation or hopelessness, which could impact their willingness to reach out for treatment. It is also possible that patients were given the pull-tabs by providers instead of choosing to take them because of their own interest. It is impossible to know why patients failed to contact the author without directly asking; however, speculation regarding these factors may lead to changes in future recruitment strategies.

Referrals. Behavioral health consultants were contacted by the author at the beginning of the recruitment period and asked to refer patients they encountered who satisfied inclusion and exclusion criteria. They were encouraged to refer from their existing caseloads if RNT was not the focus of treatment and were asked to present the group as an option for treatment during warm handoff encounters and phone screenings with patients on the behavioral health waitlist. A second email was sent 18 days later reminding BHCs about the group and prompting them to refer any appropriate patients with whom they had had contact. Four patients indicated that they were referred by a BHC out of the 11 total patients who made contact expressing interest in the study. With a behavioral health team of 11 consultants (not including the author) each seeing between 6 and 8 patients per week in addition to participating in warm handoff encounters and triaging patients from the waitlist, it was unexpected that so few patients indicated being referred by a BHC. An examination of structural factors specific to this practice in addition to general behavioral factors may help in understanding the lack of referrals.

First, treatment by BHCs in this practice is almost exclusively individual psychotherapy. In a 2004 randomized controlled trial, Sharp, Power, and Swanson found that 95% of patients in primary care given the choice between individual or group psychotherapy elected to receive individual services.. Second, 9 of the 11 BHCs had been working in the practice for at least a year and a half; is it likely that introducing a new treatment option would take some time to implement as part of their standard practice. Third, BHCs were not regularly reminded to refer patients to the group apart from seeing posters in the practice, to which they likely quickly habituated. Fourth, because of the cognitive behavioral orientations of the BHCs, it is likely that they were already addressing the RNT concerns of their caseloads with interventions that would have excluded their patients from meeting participation criteria. Fifth, it is possible that BHCs were referring patients who subsequently did not follow through with the referral and contact the author; this seems particularly likely if the patient was satisfied with the treatment they were already receiving from the BHC. Sixth, BHCs were provided with limited information about the specific content of the group, potentially making them less comfortable recommending it to patients. Finally, there was no specific referral process for BHCs; patients referred by BHCs were given a pull-tab from a poster and encouraged to contact the author and are thus subject to many of the factors discussed above regarding recruitment through the posters.

In addition to requesting referrals from BHCs, physicians were also asked to refer patients to the group. Physicians included faculty attendings and medical residents. At the beginning of the recruitment period, the site supervisor discussed the group with the residents and some of the faculty during a staff meeting in addition to sharing copies of the recruitment poster. As with BHCs, physician referrals did not have a specific referral process outside of directing patients to the poster and providing them with a pull-tab. Because of this, it is

impossible to know how many inquiries were based on physician recommendations as opposed to self-referral; however, based on overall low recruitment, it is safe to assume that there were factors negatively impacting physician referrals. As with the BHCs, physicians were not reminded to refer patients to the group outside of seeing posters around the practice. Additionally, it is very likely that a single orientation to the group's existence at the beginning of the recruitment period was insufficient to obtain buy-in or commitment from the physicians to refer patients to the group. Depending on the extent of a physician's training in identifying psychopathology, it is possible that some providers did not screen for or feel comfortable identifying problems with RNT, thus limiting their ability to refer patients. All physicians in this practice are oriented to behavioral health services as a routine part of their training and are encouraged to refer patients through warm handoffs or notification of the site supervisor via the electronic medical record (EMR); it is likely that physicians were uncertain about which patients to refer for individual therapy and which to refer to the study group and so defaulted to the standard practice of referring to the behavioral health team for individual therapy. Finally, as with BHCs, it is possible that physicians were actively referring patients who failed to follow through with contacting the author.

Waitlist outreach. The behavioral health team maintains a waitlist for psychotherapy services that is populated by physician referrals. Referral questions are often in the form of initial diagnostic impressions (e.g. "Patient struggling with depression, interested in therapy.") rather than listing specific symptoms. Because of the requirements of the inclusion criteria for the current study (i.e. primary or non-primary RNT), it was difficult to identify potential participants based off the referral question alone as there was seldom any description of the characteristic thought processes that indicate RNT. To avoid contacting inappropriate patients

and offering a service they may not qualify for, the author decided to limit outreach calls to patients with clearly-indicated difficulties with RNT in their referral question (e.g. "Patient worries all the time" or "Patient always thinking about past mistakes"). This conservative approach to outreach significantly limited this recruitment method, resulting in only two patients being contacted to discuss participation. Additionally, patients were regularly being contacted by other BHCs to build their caseloads, limiting the available pool of potential participants.

Future Directions

Three primary themes can be identified from reviewing factors impacting feasibility: over-reliance on patient action, insufficient provider support, and difficulties with patient identification. By addressing these three major themes, it is possible that future attempts to implement this program in primary care settings will be more successful.

Patient action. Two of the three methods of recruitment, posters and referrals, ultimately relied on patients to reach out to the author to express interest in the group. While this sort of opt-in approach did result in some patient contact, research has demonstrated the superiority of opt-out approaches when recruiting participants in healthcare settings (Kahneman & Tversky, 1979; Miller et al., 2017). In Eisenstat et al.'s (2012) list of recommendations for successful primary care groups, they emphasize the importance of matching existing referral practices. Referrals for behavioral health services in the practice follow this opt-out model when providers identify patients who would benefit from psychotherapy and send a request to the site supervisor to contact the patient. To improve this program in the future, referrals should come from providers (physicians and BHCs) directly to the group facilitator. A review of the literature on group treatments in primary care revealed that this sort of "opt-out" provider referral is almost

always the standard method of recruitment (Craner et al., 2016; Ejeby et al., 2014; Kristjansdottir et al., 2016; Morris et al., 2016; Roy-Byrne et al., 2010; Sandlund et al., 2017).

Provider support. If the expectation is for providers to be the primary source of referrals, it stands to reason that the group facilitator should be willing and available to provide information and support. Both Eisenstat et al. (2012) and Graffy et al. (2009) identify building and maintaining supportive relationships with providers as essential for group-based treatment and research in primary care. In the current study, the author was limited in his ability to be available by his position as a part-time graduate extern only present in the practice for 8 hours per week (with most of that time being direct-service clinical hours). Had providers been more fully informed as to the specifics of the treatment, the target population, and logistical details, they may have been more active in referring patients. Another limitation specific to the present study was the author's lack of regular access to team meetings for both physicians and BHCs. Craner et al. (2016), in attempting a similar study, emphasized the importance of soliciting referrals at team meetings.

Patient identification. Relying on physicians to correctly identify appropriate referrals, particularly with inclusion criteria involving a specific set of symptoms (i.e. RNT) as opposed to a broader diagnostic classification, can increase the workload of providers, resulting in fewer referrals (Graffy et al., 2009; Ngune, Jiwa, Dadich, Lotriet, & Sriram, 2012). Providing broader guidelines regarding potentially appropriate patients to physicians and later screening for more narrow inclusion and exclusion criteria appears to be an effective, standard practice in primary care research (Ejeby et al., 2014; Kristjansdottir et al., 2016; Sandlund et al., 2017). Another option is to have referrals triggered by a threshold score on a universal screening instrument (e.g. GAD-7 score > 9), if such a practice is already in place (Roy-Byrne et al., 2010). One major

benefit of such an approach is the potential to shift referral responsibilities, in part, away from physicians and to other, less-specialized providers (e.g. medical assistants or nurses) who are able to score these screening instruments. Several primary care clinics in Sweden recruiting for a mindfulness group successfully used phone triage nurses to identify potential participants by screening for some of the inclusion criteria when patients called to make an appointment with their physician (Sundquist et al., 2015).

The waitlist outreach recruitment strategy was poorly implemented in addition to having several problems detailed above. Being less conservative regarding who to contact would likely have resulted in more participants. Another similar resource that could be taken advantage of is a diagnosis-specific patient registry. Patients with chronic medical conditions such as chronic back pain and diabetes are routinely listed in registries to facilitate outreach efforts and outcome monitoring, and these registries have been used by researchers to recruit participants for group-based treatments in primary care (Dontje & Forrest, 2011; Saunders et al., 2000). Utilizing an EMR to generate a report of patients filtered by diagnosis (e.g. generalized anxiety disorder or major depressive disorder) could be used as part of a recruitment process in which patients are identified, primary care providers are contacted to confirm that the diagnosis is current, and patients are contacted for possible recruitment.

Final Thoughts

Although this study appears to have answered the question of feasibility with a resounding "no," a deeper exploration of factors impacting recruitment have informed future directions regarding decreased reliance on patient action, increased provider support, and improved patient identification. Specific recommendations for improving recruitment procedures include:

1. Use direct referral practices from providers to group facilitators (opt-out, not opt-in)
2. Equip providers with details regarding the group's content and logistics
3. Be available to answer questions about and remind providers of the group (at team meetings, whenever possible)
4. Give providers broad guidelines regarding appropriate referrals
5. Have referrals trigger based on set thresholds on commonly-used screening measures
6. Train non-provider support staff in identifying appropriate referrals
7. Review registries of patients with relevant diagnoses to identify potential participants
8. Recruit patients over a much longer period—any new clinical service takes time to become established in a practice.

Many of these recommendations are consistent with the norms and values of integrated care including close relationships between providers, active collaboration, accessibility, and shared electronic medical records (Weisberg & Magidson, 2014). In the end, it appears the answer to the question of how to improve the delivery of group-based, transdiagnostic treatment in an integrated care setting is to simply follow the norms of integrated care.

Appendix

RUTGERS
Robert Wood Johnson Medical School

Do "what if's" or "I should have's" keep you up at night?

Do you feel "stuck" thinking about the past or future?

Would others describe you as a "worrier?"

Does your thinking leave you tense, nervous, or on edge?

Take back control with

Mastering Worry and Negative Thinking

A 6-week course designed to help you:

- Understand how negative thinking sticks around
- Identify and address unhelpful beliefs about negative thinking
- Learn and practice new skills to address negative thinking

Mastering Worry and Negative Thinking groups are based on scientific research and are part of an IRB-approved research study. Groups are held at Monument Square. Each of the 6 sessions lasts 1.5 hours; groups are scheduled around members' availability.

For more information, or to sign up for a group, contact Angelo Alago, PsyM at 732.930.1228 or angelo.alago@rutgers.edu

Mastering Worry
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References

Anderson, R. & Campbell, B. (2011). *Working with worry and rumination: A cognitive behavioural group treatment programme for repetitive negative thinking*. Perth: Centre for Clinical Interventions.

Barlow, D. H., Allen, L. B., & Choate, M. L. (2004). Toward a unified treatment for emotional disorders. *Behavior Therapy, 35* (2), 205–230.

Barlow, D. H., Farchione, T. J., Bullis, J. R., Gallagher, M. W., Murray-Latin, H., Sauer-Zavala, S., … Cassiello-Robbins, C. (2017). The unified protocol for transdiagnostic treatment of emotional disorders compared with diagnosis-specific protocols for anxiety disorders: A randomized clinical trial. *JAMA Psychiatry, 74* (9), 875-884.

Brown, T. A., & Barlow, D. H. (1992). Comorbidity among anxiety disorders: Implications for treatment and *DSM–IV. Journal of Consulting and Clinical Psychology, 60,* 835–844.

Craner, J. R., Sawchuk, C. N., & Smyth, K. T. (2016). Outcomes of a 6-week cognitive-behavioral and mindfulness group intervention in primary care. *Families, Systems, & Health, 34* (3), 250-259.

Dontje, K. & Forrest, K. (2011). Implementing group visits: Are they effective to improve diabetes self-management outcomes? *The Journal for Nurse Practitioners, 7* (7), 571-577.

Ehring, T., & Watkins, E. R. (2008). Repetitive negative thinking as a transdiagnostic process. *International Journal of cognitive Therapy, 1*, 192–205.

Eisenstat, S. A., Ulman, K., Siegel, A. L., & Carlson, K. (2013). Diabetes group visits: Integrated medical care and behavioral support to improve diabetes care and outcomes from a primary care perspective. *Current Diabetes Reports, 13,* 177-187.

Ejeby, K., Savitskij, R., Ost, L., Ekbom, A., Brandt, L., Ramnero, J., & ... Backlund, L. (2014). Randomized controlled trial of transdiagnostic group treatments for primary care patients with common mental disorders. *Family Practice*, *31* (3), 273-280.

Ellard, K. K., Fairholme, C. P., Boisseau, C. L., Farchione, T. J., Barlow, D. H. (2010). Unified protocol for the transdiagnostic treatment of emotional disorders: Protocol development and initial outcome data. *Cognitive and Behavioral Practice, 17* (1), 88-101.

Farchione, T. J., Fairholme, C. P., Ellard, K. K., Boisseau, C. L., Thompson-Hollands, J., Carl, J. R., … Barlow, D. H. (2012). Unified protocol for transdiagnostic treatment of emotional disorders: A randomized controlled trial. *Behavior Therapy, 43* (3), 666-678.

Graffy, J., Grant, J., Boase, S., Ward, E., Wallace, P., Miller, J., & Kinmonth, A. L. (2009). UK research staff perspectives on improving recruitment and retention to primary care research; Nominal group exercise. *Family Practice, 26,* 48-55.

Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). Acceptance and commitment therapy: An experiential approach to behavior change. New York: Guilford Press.

Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology, 64* (6), 1152–1168.

Kahneman, D. & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica, 47* (2), 263-292.

Kendell, R. E. (1975). *The role of diagnosis in psychiatry.* Oxford, England: Blackwell Scientific Publications.

Kristjansdottir, H., Salkovskis, P. M., Sigurdsson, B. H., Sigurdsson, E., Agnarsdottir, A., & Sigurdsson, J. F. (2016). Transdiagnostic cognitive behavioural treatment and the impacts

of co-morbidity: An open trial in a cohort of primary care patients. *Nordic Journal of Psychiatry, 70* (3), 215-223.

Kroenke, K., & Mangelsdorff, A. (1989). Common symptoms in ambulatory care: Incidence, evaluation, therapy, and outcome. *The American Journal of Medicine,86* (3), 262-266.

Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16* (9), 606–613.

McEvoy, P. M., Erceg-Hurn, D. M., Anderson, R. A., Campbell, B. N., Swan, A., Saulsman, L. M., ... & Nathan, P. R. (2015). Group metacognitive therapy for repetitive negative thinking in primary and non-primary generalized anxiety disorder: An effectiveness trial. *Journal of Affective Disorders, 175*, 124-132.

McEvoy, P.M., Mahoney, A.E.J., Moulds, M.L. (2010.) Are worry, rumination, and post- event processing one and the same?: Development of the repetitive thinking questionnaire. *Journal of Anxiety Disorders, 24* (5), 509–519.

McEvoy, P.M., Thibodeau, M.A., Asmundson, G.J.G. (2014.) Trait repetitive negative thinking: A brief transdiagnostic assessment. *Journal of Experimental Psychopathology, 3*, 382–398.

Meyers, T., Miller, M., Metzger, R., Borkovec, T. (1990.) Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy, 28* (6), 487–495.

Miller, C. J., Burgess Jr., J. F., Fischer, E. P., Hodges, D. J., Belanger, L. K., Lipschitz, J. M., … Pyne, J. M. (2017). Practical application of opt-out recruitment methods in two health services research studies. *BMC Medical Research Methodology, 17* (57), 1-12.

Morris, L., Mansell, W., Emsley, R., Bates, R., Comiskey, J., Pistorius, E., & McEvoy, P. (2015). Prospective cohort feasibility study of a transdiagnostic group intervention for

common mental health problems: The Take Control Course. *Psychology and Psychotherapy: Theory, Research And Practice, 89* (2), 163-180.

Ngune, I., Jiwa, M., Dadich, A., Lotriet, J., & Sriram, D. (2012). Effective recruitment strategies in primary care research: A systematic review. *Quality in Primary Care, 20* (2), 115-123.

Norton, P. J., & Paulus, D. J. (2016). Toward a unified treatment for emotional disorders: Update on the science and practice. *Behavior Therapy, 47* (6), 854-868.

Olfson, M. (2016). The rise of primary care physicians in the provision of us mental health care. *Journal of Health Politics, Policy & Law*, *41* (4), 559-583.

Post, E. P., Metzger, M., Dumas, P., & Lehmann, L. (2010). Integrating mental health into primary care within the Veterans Health Administration. *Families, Systems, & Health, 28* (2), 83-90.

Regier, D. A., Goldberg, I. D., & Taube, C. A. (1978). The de facto US mental health services: A public health perspective. *Archives of General Psychiatry, 35* (6), 685-693.

Rollman, B. L., Belnap, B. H., Mazumdar, S., Houck, P. R., Zhu, F., Gardner, W., ... Shear, M. K. (2005). A randomized trial to improve the quality of treatment for panic and generalized anxiety disorders in primary care. *Archives of General Psychiatry*, *62* (12), 1332–1341.

Roy-Byrne, P., Craske, M. G., Sullivan, G., Rose, R. D., Edlund, M. J., Lang, A. J., ... Stein, M. B. (2010). Delivery of evidence-based treatment for multiple anxiety disorders in primary care: A randomized controlled trial. *Journal of the American Medical Association, 303* (19), 1921–1928.

Sandlund, C., Hetta, J., Nilsson, G. H., Ekstedt, M., & Westman, J. (2017). Improving insomnia in primary care patients: A randomized controlled trial of nurse-led group treatment. *International Journal of Nursing Studies, 72,* 30-41.

Saunders, K. W., Von Korff, M., & Grothaus, L.C. (2000). Predictors of participation in primary care group-format back pain self-care interventions. *The Clinical Journal of Pain, 16* (3), 236-243.

Seekles, W., Cuijpers, P., Kok, R., Beekman, A., van Marwijk, H., & van Straten, A. (2013). Psychological treatment of anxiety in primary care: A meta-analysis. *Psychological Medicine, 43* (2), 351-361.

Sharp, D. M., Power, K. G., & Swanson, V. (2004). A comparison of the efficacy and acceptability of group versus individual cognitive behaviour therapy in the treatment of panic disorder and agoraphobia in primary care. *Clinical Psychology and Psychotherapy, 11*, 73-82.

Shepardson, R. L., Funderburk, J. S., & Weisberg, R. B. (2016). Adapting evidence-based, cognitive-behavioral interventions for anxiety for use with adults in integrated primary care settings. *Families, Systems, & Health, 34* (2), 114-127.

Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine, 166* (10), 1092–1097.

Sundquist, J., Lilja, A., Palmer, K., Memon, A. A., Wang, X., Johansson, L. M., & Sundquist, K. (2015). Mindfulness group therapy in primary care patients with depression, anxiety, and stress and adjustment disorders: Randomised controlled trial. *The British Journal of Psychiatry, 206*, 128-135.

Trull, T. J., Widiger, T. A., & Guthrie, P. (1990). Categorical versus dimensional status of borderline personality disorder. *Journal of Abnormal Psychology, 99* (1), 40-48.

Wang, P. S., Demler, O., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2006). Changing profile of service sectors used for mental health care in the U.S. *American Journal of Psychiatry, 163* (7), 1187–1198.

Wang, P. S., Lane, M., Olfson, M., Pincus, H. A., Wells, K. B., & Kessler, R. C. (2005). Twelve-month service use of mental health services in the United States. *Archives of General Psychiatry, 62*, 629–640.

Watkins, E. R. (2008). Constructive and unconstructive repetitive thought. *Psychological Bulletin, 134*, 163–206.

Watkins, E., Moulds, M., & Mackintosh, B. (2005). Comparisons between rumination and worry in a non-clinical population. *Behaviour Research and Therapy, 43*, 1577–1585.

Weisberg, R., & Magidson, J. (2014). Integrating cognitive behavioral therapy into primary care settings. *Cognitive And Behavioral Practice*, *21* (3), 247-251.

Wells, A. (1995). Meta-cognition and worry: A cognitive model of generalised anxiety disorder. *Behavioural and Cognitive Psychotherapy, 23*, 301–320.

Zeiss, A. M., & Karlin, B. E. (2008). Integrating mental health and primary care services in the Department of Veterans Affairs health care system. *Journal of Clinical Psychology in Medical Settings*, *15*, 73-78.

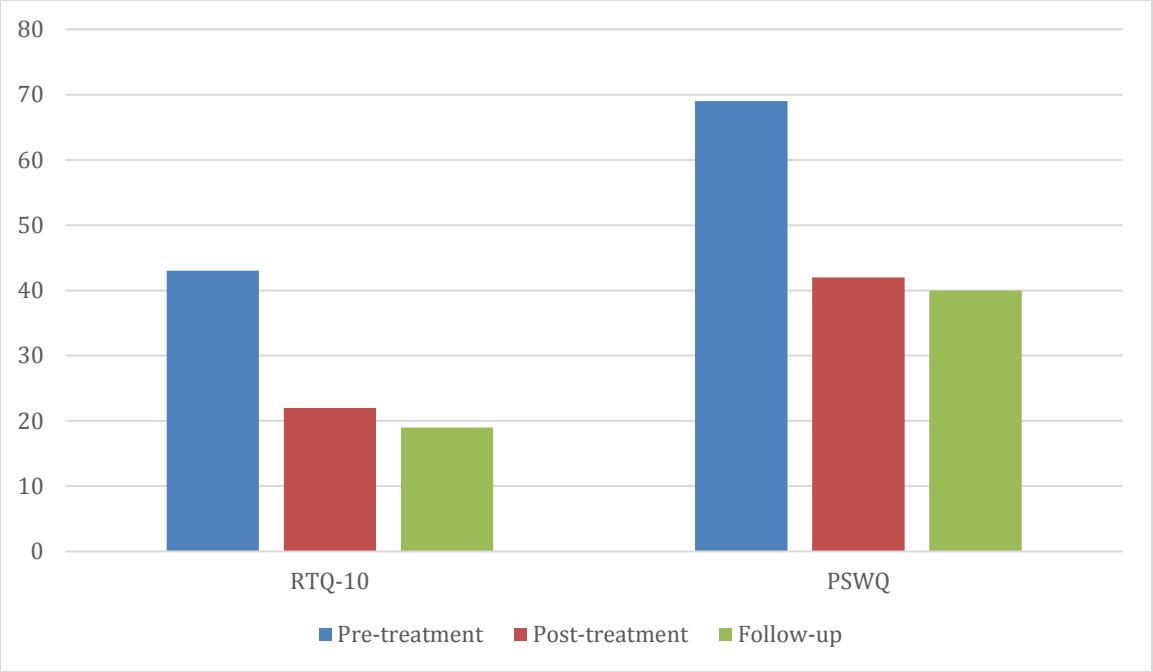

Figure 1. Change in RNT scores for participant 1.

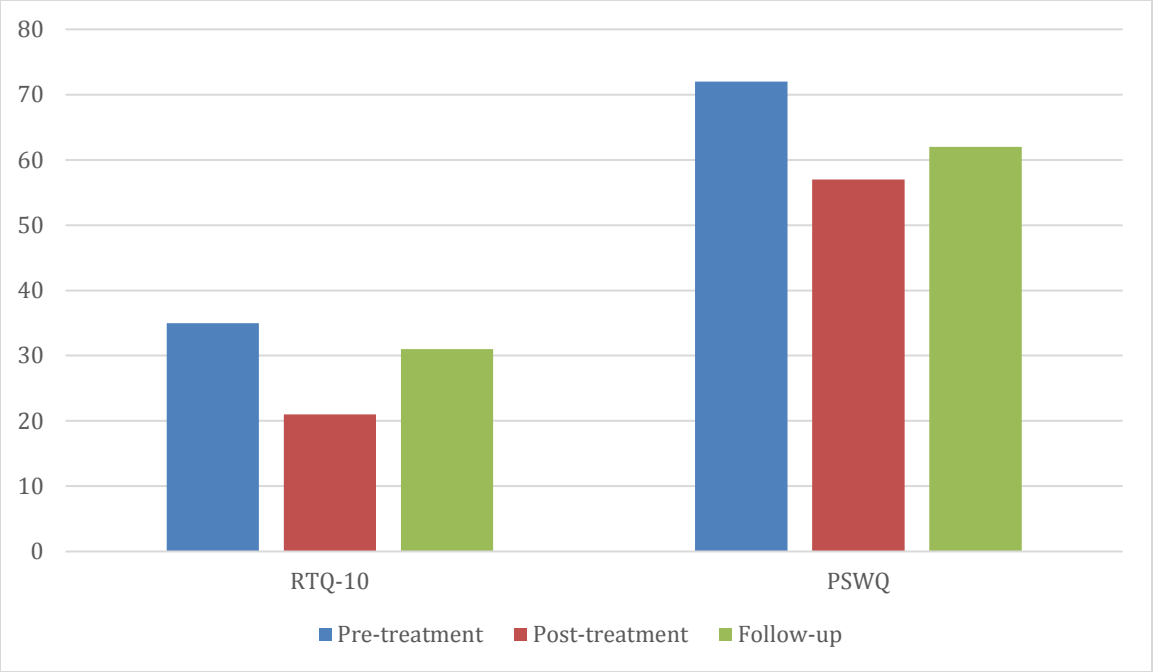

Figure 2. Change in RNT scores for participant 2.

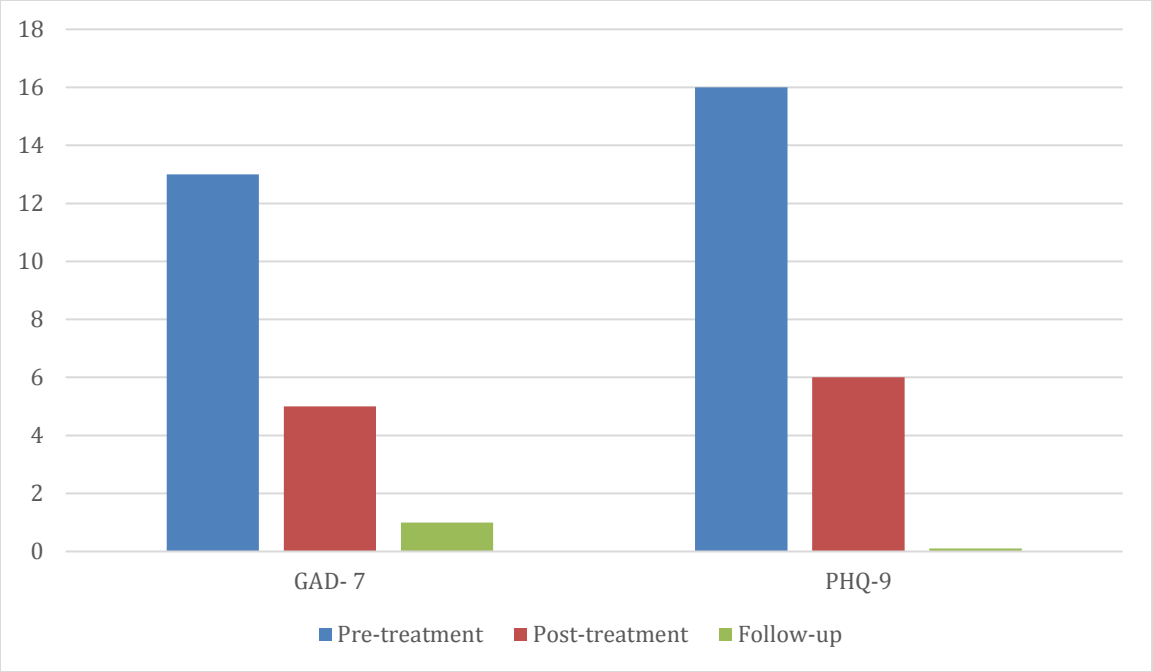

Figure 3. Change in anxiety and depression scores for participant 1.

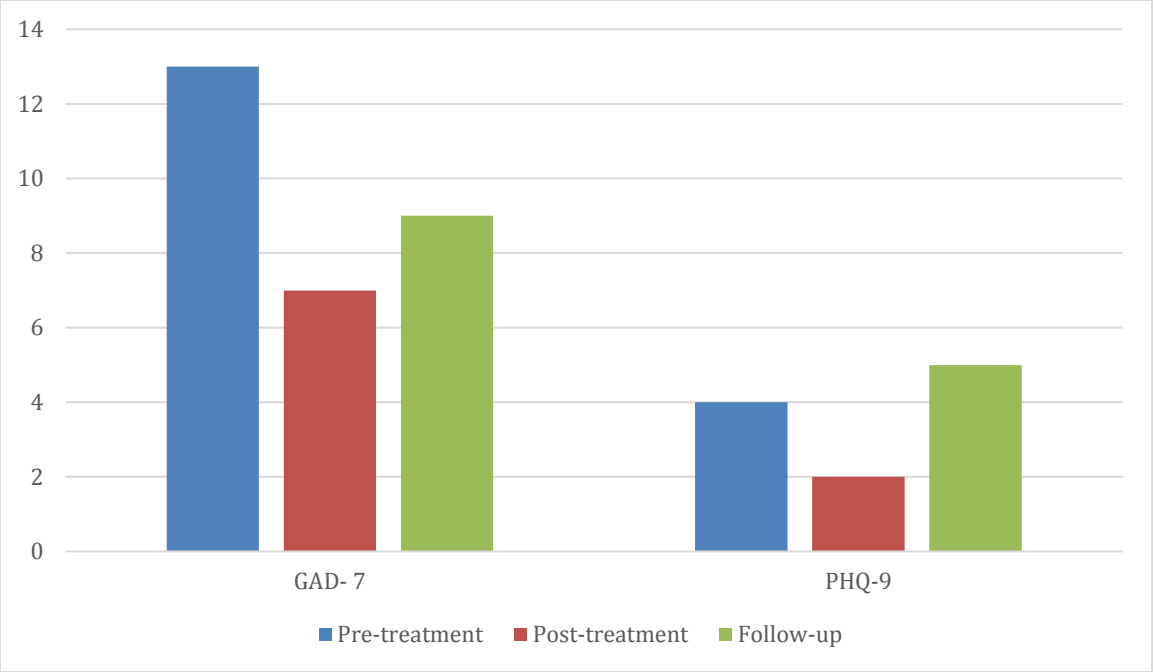

Figure 4. Change in anxiety and depression scores for participant 2.