Feasibility study of brief Group Transdiagnostic Cognitive Behavioural Treatment delivered via Zoom for anxiety and depression in primary care

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ABSTRACT

AIM: To report the feasibility of delivering and the effectiveness of brief Group Transdiagnostic Cognitive Behavioural Therapy (TCBT) via Zoom for anxiety and/or depression in primary care.

METHODS: Participants were eligible for this open-label study if their primary care clinician recommended brief psychological intervention for clinically diagnosed anxiety and/or depression. Group TCBT included an individual assessment followed by four x 2-hour manualised therapy sessions. Primary outcome measures assessed recruitment, adherence to treatment and reliable recovery measured using the PHQ-9 and GAD-7.

RESULTS: Twenty-two participants received TCBT over three groups. Recruitment and adherence to TCBT met feasibility thresholds for delivering group TCBT via Zoom. Improvements in the PHQ-9, GAD-7 and reliable recovery were present 3 and 6 months following treatment commencement.

CONCLUSION: Brief TCBT delivered using Zoom is a feasible treatment for anxiety and depression diagnosed in primary care. Definitive RCTs are required to provide confirmatory evidence of efficacy for brief group TCBT in this setting.

Anxiety and depression are common and burdensome mental illnesses in the community.[1–3] Standard treatment for anxiety and depression consists of psychological interventions and medications.[4,5] In New Zealand, psychological interventions are most delivered in individual form by Brief Intervention Counsellors over 4–6 sessions.

Individual disorder-specific Cognitive Behavioural Treatment (CBT) may not be the most effective or efficient model of treatment for patients with mixed anxiety and depression. Transdiagnostic Cognitive Behavioural Treatment (TCBT) (targeting depression and a range of anxiety disorders) is an effective treatment that targets the common factors and processes underlying anxiety and depressive symptoms.[6–8] Previous trials evaluating TCBT have been internet-based or face-to-face in individual or group form.[9] Treatment lengths have typically been 10–18 sessions,[9–12] although a large TCBT study evaluated brief (seven session) group TCBT for emotional disorders in primary care.[13] This study reported sustained improvements for anxiety, depression, somatisation and reliable recovery for those receiving TCBT compared to treatment with general practitioners (GPs), but the treatment intervention was longer than is typically provided in the New Zealand context and the study did not include an active therapy control.

Greater availability of evidence-based psychological interventions is required in New Zealand and Australia to address mild to moderate mental illness in primary care.[14,15] In New Zealand, there is also a strong imperative for culturally appropriate interventions due to entrenched health disparities for the Indigenous Māori population.[16] In the context of the COVID-19 pandemic, there is also a need for innovative healthcare provision solutions. Greater use of video conferencing and telehealth facilities may be required in the future.[17]

We planned a study evaluating a four session TCBT intervention to match the length of therapy typically provided by community counsellors in New Zealand. We commenced a Randomised Controlled Trial (RCT) to evaluate the feasibility

of evaluating brief group TCBT for adults with anxiety and/or depression in primary care. At an early stage, it was clear that recruitment to the study would not meet the rate we had specified in our primary outcomes to be feasible. In addition, the COVID-19 pandemic meant that further recruitment to face-to face groups was untenable. We therefore redesigned the study to evaluate the feasibility of delivering open-label group TCBT using the video conference platform Zoom. This paper reports findings from the redesigned open-label Zoom study evaluating brief group TCBT for patients with anxiety and depression in primary care.

Methods

Ethics approval was granted by the Northern B Health and Disability Ethics Committee. Approval number: 19/NTB/143/AM03. The trial was prospectively registered with the Australian New Zealand Clinical Trials Registry (ANZCTR). Registration number: 12619001563156. UTN: U1111-1235-5047. This work was funded by the Health Research Council of New Zealand (reference number: 19/670).

Eligibility criteria

Patients aged 18 or older referred for brief psychological assistance with anxiety and/or depression in primary care. Entry to the study was based on the clinical judgement of primary care clinicians that brief psychological input for anxiety and/or depression was required (as opposed to formal diagnostic assessment or meeting diagnostic threshold on clinical rating scales).

Exclusion criteria

Patients not eligible included those for whom alcohol and drugs were identified as the main clinical issue, those for whom a referral to specialty services was required to manage moderate–severe illness or high levels of risk and those with significant cognitive problems or language barriers that meant psychological interventions and completion of rating scales was not possible unless in modified form. If participants were unable to access the internet for Zoom purposes they were also ineligible for the study.

Recruitment

We met with key primary care clinical staff to ask them to consider referring their patients for brief group TCBT delivered by Zoom (as opposed to offering usual individual input) if they considered that brief psychological interventions were indicated for anxiety and depression. We accepted referrals from GPs and other primary care practitioners including brief intervention counsellors and allied health professionals providing brief general health interventions. Potential patients were aware they were being referred for group online TCBT for anxiety and depression. Following referral, potential participants were contacted by one of the group facilitators who provided study information and asked if they wish to participate further. Further information was then sent by mail or email and a study baseline assessment was booked with one of the group facilitators. Informed consent and baseline questionnaires were completed using REDCap, a secure, web-based electronic data tool hosted at the University of Otago.[18] The baseline assessment was completed on Zoom to allow any technological issues to be resolved prior to group commencement.

Intervention

Participants received an initial 1-hour assessment followed by four x 2-hour group transdiagnostic treatments. The 1-hour assessment clarified the core presenting problem, screened for anxiety and depression symptoms, checked for any risk issues and completed interim goal setting. All sessions were delivered via Zoom.

Group facilitators followed a treatment manual developed specifically for this group by Ms Alison Alexander and Associate Professor Jennifer Jordan. Ms Alexander and Associate Professor Jordan are clinical psychologists with extensive experience in transdiagnostic treatments for anxiety and depression. Ms Alexander or Associate Professor Jordan and Ms Angie Spencer led the groups. Ms Spencer is a registered nurse with postgraduate CBT qualifications who was employed as a brief intervention counsellor. Ms Spencer completed a 1-day training programme about this TCBT programme prior to group commencement.

Group content included the following: socialisation to the group, goal setting and motivation, introduction to the TCBT model, understanding the function of emotion, emotion-driven behaviours and the role of avoidance, behavioural activation, learning to observe emotions and thoughts (mindfulness exercises), thinking biases and thought restructuring, behavioural experiments, awareness of and tolerating physiological sensations (including interoceptive exposures) and relapse prevention. Table 1 outlines the course content according to session. The content was delivered

using a PowerPoint lecture framework complemented by discussion, small and whole group exercises and behavioural experiments. Zoom breakout rooms were used for behavioural experiments and to facilitate interaction. Catch-up sessions were offered to participants if they were unable to attend one of the group sessions. The treatment manual was sent to group participants in paper form at the beginning of therapy and was used as a therapy workbook. Access to the manual will be considered on request to the corresponding author. Table 1 provides more details on the content and timing of the therapy sessions.

Each session ends with setting up homework, including that specific to individual goals. Session 2–4 begin with a review of how the group fared with their homework.

Outcome measures

The primary outcomes were measures evaluating the feasibility of recruiting and successfully delivering brief group TCBT using Zoom for anxiety and depression in primary care:

1. If fewer than 50% of patients approached by study staff agreed to participate, the group treatment would be deemed unfeasible.
2. If more than 50% of patients failed to complete at least 3/4 treatment sessions, the group treatment would be deemed unfeasible.
3. To measure whether online group TCBT resulted in reliable recovery at 3 and 6 months following treatment commencement. Reliable recovery was measured by scoring above clinical cut-off for PHQ-9 (≥10) and GAD-7 (≥8) at baseline assessment, scoring below clinical cut-off for PHQ-9 and GAD-7 at the follow-up time point and showing reliable improvement over treatment (pre-post change in PHQ-9>5.2 and GAD-7>3.53).[19] The PHQ-9 is a reliable, valid self-administered measure of depression[20] and the GAD-7 is a valid and efficient self-report measure for the assessment of generalised anxiety disorder.[21]

Secondary outcome measures were:

1. Acceptability of study intervention and design for Māori measured by: recruitment, treatment completion, drop-out rates and satisfaction ratings.
2. If fewer than 75% completed psychological measures (PHQ-9 and GAD-7) at the 3 time points (baseline, 3 and 6 months) the study would be deemed unfeasible.

Additional assessment

We also included treatment credibility, session rating scale and treatment satisfaction questions at the end of TCBT. We anticipate reporting this data in a subsequent publication that also provides a more detailed account of the development of the brief TCBT manual, which we feel is beyond the scope of this initial paper.

Statistical analysis

Socio-demographic characteristics, baseline PHQ and GAD levels of the study populations and the feasibility measures are reported using standard descriptive statistics including means, standard deviations, medians, interquartile ranges and frequencies and percentages.

The mean change for PHQ-9, GAD-7 from baseline and reliable recovery rates are reported. These changes were calculated from all available data with no imputation of missing data due to the feasibility goals and small sample sizes.

Results

Table 2 outlines the baseline socio-demographic characteristics and clinical rating scales for the study population. Twenty-two participants were allocated to receive Zoom group TCBT (provided over three groups). Sixty-eight percent were female. The majority of the study population were of NZ European ethnicity. The mean score for the PHQ-9 was 16.7 (SD 5.8), consistent with moderately severe depression. The mean GAD-7 score was 13.3 (4.9), consistent with moderate anxiety.

All referrals to the open-label study agreed to participate, although two patients withdrew prior to therapy commencement. This 100% recruitment rate met our primary outcome recruitment criterion. 20/24 participants (83%) completed at least three of the four treatment sessions, meaning the treatment engagement feasibility criterion was met. A total of 4 catch-up sessions (between three participants) were offered and used during the three open-label groups. The overall completion rate for psychological measures at baseline, 3 months and 6 months was 80%, meeting the primary outcome criterion.

Māori participation in the study was low and

Table 1: Group TCBT content.

Session	Content
Assessment	Clarification of core presenting problem and screening for anxiety and depression Risk assessment Interim goal setting
1	Socialisation to the group Introduction to the TCBT model Understanding the function of emotion Behavioural activation Motivation, goal setting and graded hierarchies
2	Thinking biases and cognitive restructuring Behavioural experiments Awareness of and tolerating physiological sensations (including interoceptive exposures)
3	Attention focus and behavioural experiments Learning to observe emotions and thoughts Mindfulness exercises
4	Review and further behavioural experiments Relapse prevention Wellbeing plan and being your own therapist

findings are not reported separately for Māori to prevent identification of participants.

Table 3 reports the change in PHQ-9 and GAD-7 scores compared to baseline. PHQ-9 and GAD-7 scores improved compared to baseline at all time intervals. Table 3 also reports the reliable recovery rates at 3 and 6 months. Thirty-six percent of the study population met the reliable recovery criteria at 3 months and 42.9% met the criteria at 6 months.

Discussion

We evaluated brief group TCBT delivered by Zoom for anxiety and depression in primary care. Our initial face-to-face RCT failed to meet pre-specified recruitment criteria and the COVID-19 pandemic intervened, which meant we redesigned our study to evaluate brief group TCBT delivered by Zoom. Despite modifying the study design and switching the delivery of therapy to Zoom, we believe there are key findings that inform this area of research.

The redesigned study recruited at a higher rate than the RCT. Potential participants were only passed on to study staff for further contact if they expressed an interest in receiving group TCBT following discussion with their primary care physician. Referrals to the study were dominated by a small number of referrers as opposed to being spread widely over the primary care network. This suggests that enthusiastic staff and allegiances with referrers are critical in the referral process.

The mean baseline measures of the study population were consistent with moderately severe depression[20] and moderate anxiety.[21] Attendance at the groups and completion of the outcome measures following treatment met pre-specified criteria. The high level of attendence accompanied by improvements in the clinical rating scales suggests that participants found attending the groups beneficial. Groups were undertaken during office hours. However, as they occured during the acute phase of the COVID-19 pandemic, this may have resulted in

Table 2: Socio-demographic characteristics of the study population.

Characteristic	TCBT groups (n=22)
Mean age (SD)	36.6 (14.6)
Mean PHQ-9 baseline (SD)	16.7 (5.8)
Mean GAD-7 baseline (SD)	13.3 (4.9)
Female (%)	15 (68.2)
Ethnicity (%)	
NZ European	13 (59.1)
Māori and other ethnicity	9 (40.9)
Relationship status (%)	
Single	14 (63.6)
Married/de facto	6 (27.3)
Widowed/separated/divorced	2 (9.0)
Median education years (IQR)	
Secondary school	5.0 (3.0–5.0)
Tertiary level	3.0 (1.0–4.0)
Employment status (%)	
Paid employment	8 (36.4)
Job seeking	3 (13.6)
Other	11 (50.0)

Table 3: Clinical outcome measures.

Outcome	TCBT groups
Mean change PHQ-9 from baseline at 3 months (SD)	7.8 (4.2) (n=14)
Mean change PHQ-9 from baseline at 6 months (SD)	7.6 (6.1) (n=15)
Mean change GAD-7 from baseline at 3 months (SD)	7.1 (5.2) (n=14)
Mean change GAD-7 from baseline at 6 months (SD)	6.5 (6.4) (n=15)
N reliable recovery 3 months (%)	5 (35.7)
N reliable recovery 6 months (%)	6 (42.9)

greater ease of attendance for participants. Therapists were able to deliver planned content using Zoom, although some interpersonal aspects and behavioural experiments are likely to have been experienced differently by participants compared to face-to-face delivery.

Group TCBT was associated with improvements in the PHQ-9 and GAD-7 scales that were sustained over the follow-up period. This suggests that brief group TCBT is helpful for patients with anxiety and depression in primary care. We measured reliable recovery to include a robust measure of recovery and improvement over time.[19] The reliable recovery rates were 35.7% and 42.9% at 3- and 6-month follow-up periods. These are comparable with reliable recovery rates measured at the end of therapy in the United Kingdom. The large scale Improving Access to Psychological Therapies (IAPT) service reported reliable recovery rates of 42.85% and 44.44% in 2014/2015 and 2015/2016 respectively.[17]

We believe there are therapeutic benefits offered by group interventions (over and above individual treatments) such as group bonding and the potential for within-group behavioural experiments that may be particularly helpful for some individuals with anxiety and depression.[22] Group treatment protocols also have the potential to deliver more therapeutic content despite using less staff time. These efficiency gains should be appealing for patients and organisations providing care. We suggest that if face-to-face group treatments are planned, they are best delivered from large urban centres to ensure sufficient numbers for timely recruitment to groups. However, Zoom and other video conferencing platforms appear to offer an appealing alternative for New Zealand and Australia that service large rural populations. The delivery of brief group TCBT via Zoom is also appealing in the context of pandemics that may place restrictions on and uncertainty over group gatherings.

Limitations

We relied on clinical judgement to determine anxiety and depression requiring therapy for study entry and psychological rating scales (PHQ-9 and GAD-7) to track progress as opposed to undertaking structured diagnostic interviews. Māori participation in the study was low. This suggests that systemic factors influencing referral may be present or that our treatment intervention may not be appealing for Māori (although the study was not powered to determine if this is the case).

In conclusion, we believe that brief group TCBT delivered via Zoom for anxiety and depression in primary care offers promise. Definitive studies are required to compare brief group TCBT with treatment as usual. We also believe there are benefits to further studies comparing face-to-face group TCBT with that delivered by video conferencing.

COMPETING INTERESTS
The authors have no competing interests to declare relating to this research.

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