

Clinician vs non-clinician supported eTherapy for anxiety and depression.

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Abstract

Purpose

The efficacy of supported computerised therapy (eTherapy) for anxiety and depression is established, however questions remain regarding supporter type.

This study examined differences in client outcomes between clinician (Psychological Wellbeing Practitioner - PWP) and nonclinician supported, low intensity eTherapy.

Standardised outcome measures were collected and analysed pre- and post-intervention in two eTherapy services as part of National Health Service (NHS) commissioned, Improving Access to Psychological Therapy (IAPT) provision - now known as NHS Talking Therapies for anxiety and depression (TT).

Methodology

The study is a routine service evaluation comparing two eTherapy services. 494 clients (including 455 clients meeting caseness) accessed the service over a year as part of routine care for anxiety and depression. The Patient Health Questionnaire (PHQ-9) and Generalised Anxiety Disorder Questionnaire (GAD-7) scales were administered pre- and post-treatment as part of the TT data set (NHS England, 2024).

Findings

Following adjustment for demographics, baseline assessment scores, and clinical variables, we found no evidence to support differences in the likelihood of recovery between clients in the non-clinician supported site and clients referred to the clinician-supported site: OR= 1.24 [95%CI: 0.71 to 2.17] for TT recovery, OR= 0.83 [95%CI: 0.47 to 1.49] for TT reliable improvement and OR= 1.11 [95%CI: 0.65 to 1.92] for TT reliable recovery.

Originality

Non-clinician supported eTherapy is as effective as clinician supported eTherapy. This finding supports the case for expansion of non-clinician supported eTherapy services in TT services.

1. INTRODUCTION

1.1 Background to the service

The provider is a National Health Service (NHS) commissioned provider of NHS Talking Therapy Services (TT) for anxiety and depression and delivers evidence-based therapies for people experiencing common mental health problems, such as depression and anxiety as well as other non-clinical, peer-support focused services.

The organisation's computerised therapy services, referred to as 'eTherapy' services, developed following an initial pilot undertaken in the early 2000s in which the eTherapy programme, Beating the Blues - BTBTM (Proudfoot et al., 2003) was made available to clients in an unsupported manner. High drop-out rates were observed, which is consistent with other research findings (Schmidt et al., 2019), and feedback inferred clients needed 1:1 support in addition to accessing the eTherapy programme itself.

Following this, an eTherapy model was developed where wrap-around, non-clinical support was offered via non-clinicians, known as eTherapy Co-ordinators (eTCs). Initially, the eTherapy service operated from community venues such as IT cafes and libraries, for clients with common mental health difficulties such as anxiety and depression. The effectiveness of this 'venue model' of eTherapy service delivery has been described and evidenced (Cavanagh et al., 2011a, b). The model then developed further as a result of client feedback, to an 'at home' service where support is provided by telephone via an eTC (Gellatly et al., 2018). As the organisation secured further NHS commissions which gave rise to expansion of its eTherapy services, a clinician-supported version of the eTherapy model was provided.

1.2 Supported eTherapy

The efficacy of eTherapy in the treatment of anxiety and depression is proven and has been in use as an intervention for over two decades (Andersson et al., 2019), however the evidence is mixed regarding supported models of eTherapy, with calls for further investigation of this area (Campos et al., 2019, Karyotaki et al., 2017). Whilst the NHS Talking Therapies for anxiety and depression manual (NHS England, 2024) states eTherapy interventions should be 'reinforced and supported by clinicians', the background of the supporter has been described as being of minor importance (Baumeister et al., 2014) with the level of experience of therapists also found not to affect treatment outcomes (Andersson et al., 2012). Furthermore,eTherapy services that contain a peer support element have reported some evidence in terms of assisting with client engagement (Bautista et al., 2022) and recent research has suggested the effectiveness of peer-supported eTherapy on client empowerment, depression and anxiety and treatment adherence, in real-world settings (Nissling et al., 2020).

Given the potential for autonomous digital therapy interventions as public health interventions (Fairburn & Patel, 2017) to further access to evidence based psychological therapies (Thew, 2020), it is important that the potential for non-clinical supported models of eTherapy is examined as 'taking no action to address the growing burden of major depressive disorder and anxiety disorders should not be an option' (COVID-19 Mental Disorders Collaborators, 2021). Furthermore, examining the effectiveness of eTherapy interventions supported by workers other than clinicians is important, given reported workforce shortages in public health and mental health (British Medical Association, 2019).

In this service evaluation, we compare eTherapy services supported by TT clinicians (Psychological Wellbeing Practitioners - PWPs) with eTherapy services supported by nonclinicians (eTCs), providing a direct comparison of outcomes.

1.3 Aims of the study

In our study, we compare TT outcomes for clients accessing clinician supported eTherapy and non-clinician supported eTherapy.

2. METHODS

2.1 Study design

Routine service evaluation comparing two services.

2.2 Service setting

The eTherapy services operate in two locations and are part of low intensity, TT service provision. TT services operate at low and high intensity levels, based on the stepped care model of mental health where services are organised based on the principle of offering those with less severe presentations a lower intensity support offer (Scogin et al., 2003).

Clients either self-referred to the services or were referred via a healthcare practitioner, including their GP. Referral routes were the same for the eTherapy service as the wider TT service in which the eTherapy services operated.

eTherapy in site A is currently delivered by non-clinicians, known as eTCs and covers a larger geographical area and population than site B.

eTherapy in site B is currently delivered by PWPs.

2.3 eTherapy programmes

2.3.1 Sleepio

Sleepio is an online sleep improvement programme demonstrated as being effective in helping people with insomnia (Espie et al., 2012) which can be used as a self-help programme. It comprises intervention techniques informed by CBT principles and provides clients with 6 weeks of access to tailored clinical content, and 12 weeks of support from an online community. 2.3.2 SilverCloud Health

SilverCloud Health is an online mental health platform, aimed at helping clients to improve symptoms of anxiety, depression, and stress. All programmes include evidence-based, cognitive-behavioural techniques, such as cognitive restructuring and behavioural activation. Clients are given access to six to eight sessions on SilverCloud Health, with one session typically being completed each week.

2.4. Supporters

2.4.1 Non-clinicians (eTCs)

eTCs are staff who do not have a formal TT clinical qualification, with many having lived experience of common mental health problems. Historically, the charity has developed and provided several peer-support services including eTherapy, delivered by individuals with personal experience of common mental health problems, stemming from the original user-led ethos of the organisation. TT qualifications have not been introduced as essential for eTCs. 2.4.2 Clinicians (PWPs)

Clinicians are qualified or trainee PWPs with a formal TT clinical qualification, i.e., a Post Graduate Certificate in Advanced Practice Interventions in Mental Health.

2.5 Service format

As a low intensity TT service, eligibility for eTherapy (and other therapeutic modalities) is determined following a 45-minute initial collaborative assessment (conducted in person/telephone/ online), during which inclusion and exclusion criteria are explored, the TT data set (NHS England, 2024) is completed, and a discussion regarding client mental health difficulties and goals for treatment is undertaken. If service criteria are met, clients are then triaged to one of two eTherapy programmes: Sleepio or Silvercloud Health (see 2.3.1 and 2.3.2). Both programmes are available at each site with the client and PWP/eTC deciding collaboratively, based on a shared understanding of the client's symptoms and goals, which programme is accessed. Clients are then supported to set up an account on the relevant eTherapy programme and offered weekly 'wrap around' support, typically over a six-to-eight-week period, with either a PWP or an eTC. Support is provided in the form of 15-to-20-minute, weekly telephone calls and/or emails to review client progress through the programme, tailor content, and encourage engagement. Measures are taken at every support session and outcomes can be inferred by comparing the final and initial measures.

2.6 Service participants

Participants were 494 clients presenting with depression, anxiety and other common mental health problems, meeting TT criteria for a low intensity service, accessing eTherapy services, operating within NHS commissioned TT services, between 1st April 2018 and 31st March 2019. Only clients meeting caseness at baseline were included in the statistical analysis with n reducing from 494 to 455.

2.7 Service inclusion and exclusion criteria

Study inclusion criteria: any client over the age of 18 years, accessing one of the two eTherapy programmes available at either site, who had completed at least one session of eTherapy (plus the initial assessment) - as per the TT definition of a 'completion', and who had provided post-intervention assessment data.

Study exclusion criteria: in Site B, clients that had undertaken eTherapy as part of a broader intervention offer were excluded.

2.8 Service measures

Symptoms of clients entering the eTherapy services were measured using primary outcome measures from the TT data set (NHS England, 2024) of standardised psychometric assessments and included:

1. The Patient Health Questionnaire - PHQ-9 (Kroenke et al., 2001) is a brief nine-item measure of depression severity that measures the frequency of symptoms over the past 2 weeks, on a four-point scale (0 = not at all, 1 = several days, 2 = more than half of the days and 3 = nearly every day), ranging from 0 to 27. The threshold for clinical caseness on PHQ-9 is a score of 10 or more and reliable change is a movement of 6 or more points.

2. The Generalised Anxiety Disorder Questionnaire – GAD-7 (Spitzer et al., 2006) is a brief sevenitem measure of generalised anxiety disorder severity that measures the frequency of symptoms over the past 2 weeks, on a four-point scale (0 = not at all, 1 = several days, 2 = more than half of the days and 3 = nearly every day), ranging from 0 to 21. The threshold for clinical caseness on GAD-7 is a score of 8 or more and reliable change is a movement of 4 or more points.

TT recovery, TT reliable improvement, and TT reliable recovery for clients was determined by comparing baseline (assessment) PHQ-9 and GAD-7 scores with final scores, using the criteria shown in Table I, which aligns with TT outcome definitions (NHS England, 2024).

Table 1. TT outcome definitions

TT outcome term	Definition of TT outcome term
Recovery	Baseline measure: Either PHQ-9 or GAD-7 scores meets the criteria for clinical caseness Final measure: Both the PHQ-9 and GAD-7 scores are below the threshold for clinical caseness
Reliable improvement	One of the three scenarios occurs when comparing final and baseline scores: Reliable reduction in both PHQ-9 and GAD-7 scores Reliable reduction in the PHQ-9 score and no reliable change in GAD-7 score Reliable reduction in the GAD-7 score and no reliable change in PHQ-9 score
Reliable recovery	The criteria for both recovery and reliable improvement are satisfied

Notes: Please note in our statistical analysis, we exclude clients who were not at caseness at baseline; For a given cohort of clients, recovery rate, reliable improvement rate and reliable recovery rate are determined using the following formula; Recovery = [Number of people recovering]/[(Number of people completing) – Number of people not at caseness at assessment)]; Reliable improvement = [Number of people reliably improvement]/[Number of people completing]; Reliable recovery = [Number of people reliably recovering]/ [(Number of people completing]; Reliable recovery = [Number of people reliably recovering]/ [(Number of people completing) – Number of people not at caseness at assessment assessment)]; Reliable recovery = [Number of people reliably recovering]/ [(Number of people completing) – Number of people not at caseness at assessment assessment)]; Reliable recovery = [Number of people reliably recovering]/ [(Number of people completing) – Number of people not at caseness at assessment)]; Reliable recovery = [Number of people reliably recovering]/ [(Number of people completing) – Number of people not at caseness at assessment assessment assessment assessment)]; Reliable recovery = [Number of people reliably recovering]/ [(Number of people completing) – Number of people not at caseness at assessment asse

2.9 Covariates

Demographics included gender, ethnicity, year of birth. Clinical related variables included selfreferral (yes; no), waiting time from referral to assessment (up to 6 weeks; between 6 and 18 weeks; over 18 weeks), waiting time from assessment to treatment (2nd session: up to 28 days; over 28 days), baseline assessment scores: PHQ-9 and GAD-7 at assessment, and number of total attended contacts (1 to 4; 5 to 8; 9 or more).

2.10 Statistical analyses

Each covariate is presented overall and by site using frequencies (percentages) when categorical and mean (sd) when continuous. Chi-squared, Fisher's Exact test and t-tests were performed as appropriate to examine differences between sites. Logistic regression models adjusted for covariates were used to examine whether each outcome (TT recovery, TT reliable improvement and TT reliable recovery) differed according to site. At this analysis, waiting time from referral to assessment and from assessment to treatment, and number of sessions were adjusted for as continuous variables. Baseline assessment scores (PHQ-9 and GAD-7) were also adjusted for. Results are reported as odds ratios (OR) with 95% confidence interval. All statistical analysis was performed using Stata v14.

3. Results

	B site (clinician-supported)	A site (non-clinician-supported)	
All	159	335	
At caseness at assessment	153	302	
	76 (49.7)	201 (66.6)	
All	110 (69.2)	225 (67.2)	
At caseness at assessment	110 (71.9)	217 (71.9)	
	72 (47.1)	182 (60.3)	
	At caseness at assessment All	All159At caseness at assessment153At caseness at assessment76 (49.7)All110 (69.2)At caseness at assessment110 (71.9)	

Table 2. Key outcomes for clients per site, N (%)

For the analysis, all cases meeting caseness at assessment were included. These were 455 of the 494 cases referred to two services in total between April 1st, 2018, and March 31st, 2019; 153 were seen and met caseness in the site B service and 302 satisfied these conditions in site A (Table II). Site A serves a larger geographical area than site B and has a greater population. Overall, clients had either been referred to the services by a healthcare professional (78.4%) or self-referred (21.6%). In site B, 89.5% had self-referred, whereas in site A, 72.5% were self-referrals.

In terms of client outcomes for clients meeting caseness at assessment – 49.7% and 66.6% of clients recovered at site B and site A respectively. In both sites, 71.9% of clients were TT reliably improved, and 47.1% of clients in site B and 60.3% in site A were TT reliably recovered.

Most clients were females (64.2%) of white, British background (80.4%). To simplify analysis, age was categorised into 10-year intervals. In Table III, we bundled up the middle age category to simply the table. Most clients were born in 1955 –1994 (77.4%), followed by those born in 1995 – 2004 (20.9%) and those born in 1945 -1954 (1.8%). The two sites did not differ significantly in terms of client characteristics such as gender, ethnicity, and age. (see Table III)

Most clients (71.9%) had a waiting time from referral to assessment of up to 6 weeks, and from assessment to treatment of over 28 days (61.8%). Waiting times varied considerably between sites with statistically significant different waiting times from referral to assessment (p<0.001): 94.1% of clients in site B had to wait up to 6 weeks from referral to assessment and 58.2% had to wait over 28 days from referral to treatment. In site A, 60.6% had to wait up to 6 weeks from referral to assessment and 63.6% had to wait over 28 days from assessment to treatment. The two sites were also significantly different in terms of the number of total attended contacts (p<=0.001) and the number of clients that had self-referred to the service (p<=0.001). At the baseline assessment, clients in site B had on average, significantly higher scores in both the PHQ-9 and GAD-7 questionnaires as compared to clients in site A. Clients in site A attended more contacts (75.5% had more than 5 contacts) and were less likely to self-refer (72.5%) than clients in site B (62% and 90.1% respectively) see Table III.

Following adjustment for demographics, baseline assessment scores, and clinical variables, we found no evidence to support differences in the likelihood of recovery between clients in the non-clinician supported site A and clients referred to the site B service: OR= 1.24 [95%CI: 0.71 to 2.17] for TT recovery, OR= 0.83 [95%CI: 0.47 to 1.49] for TT reliable improvement and OR= 1.11 [95%CI: 0.65 to 1.92] for TT reliable recovery (see Table IV).

Table 3. Client characteristics, waiting times, referral status and number of attended contacts for the two sites and overall

Figures in brackets are percentages	Overall	Site B	Site A	p-value
N	455	153 (33.6)	302 (66.4)	
Gender	·	÷		0.739
Male	161 (35.4)	50 (32.7)	111 (36.8)	
Female	292 (64.2)	103 (67.3)	189 (62.6)	
Gender variant	1 (0.2)	0	1 (0.3)	
Not provided	1 (0.2)	0	1 (0.3)	
Ethnicity		·		0.766
White	366 (80.4)	124 (81.1)	242 (80.1)	
Black	15 (3.3)	3 (2.0)	12 (4.0)	
Asian	42 (9.2)	16 (10.5)	26 (8.6)	
Mixed	11 (2.4)	4 (2.6)	7 (2.3)	
Other	21 (4.6)	6 (3.9)	15 (5.0)	
Year of birth				
1945–1954 (older adults)	8 (1.8)	2 (1.3)	6 (2.0)	
1955–1994 (adults)	352 (77.4)	125 (81.7)	227 (75.2)	
1995–2004 (youths and early adulthood)	95 (20.9)	26 (17.0)	69 (22.9)	
Self-referral				
No	99 (21.8)	16 (10.5)	83 (27.5)	
Yes	356 (78.2)	137 (89.5)	219 (72.5)	
Waiting time – referral to assessment				
Up to 6 weeks	327 (71.9)	144 (94.1)	183 (60.6)	
Between 6 and 18 weeks	128 (28.1)	9 (5.9)	119 (39.4)	
Over 18 weeks	0	0	0	
Waiting time – assessment to treatment (second "session)				
Up to 28 days	174 (38.2)"	64 (41.8)	110 (36.4)	
Over 28 days	281 (61.8)	89 (58.2)	192 (63.6)	
PHQ-9 at assessment, mean (SD)	13.0 (4.8)	15.0 (5.1)	11.9 (4.2)	<0.001
GAD-7 at assessment, mean (SD)	12.3 (4.1)	13.7 (4.3)	11.5 (3.7)	<0.001
No. of total attended contacts				0.001
1 to 4	132 (29.0)	58 (37.9)	74 (24.5)	
5 to 8	283 (62.2)	89 (58.1)	194 (64.2)	
9 or more	40 (8.8)	6 (3.9)	34 (11.3)	

Source: Authors' own creation

Table 4. Multiple logistic regression of TT recovery outcomes adjusted on demographics, assessment characteristics and baseline assessment score; odds ratio [95% confidence interval]

Site	TT recovered	TT reliable improvement	TT reliable recovery
В	Ref.	Ref.	Ref.
A	1.24 [0.71, 2.17]	0.83 [0.47, 1.49]	1.11 [0.65, 1.92]

Source: Authors' own creation

4. Discussion

4.1 Clinical outcomes

This study showed that clients in the non-clinician supported eTherapy service were statistically as likely to have improved TT recovery rates, TT reliable recovery rates and TT reliable improvement rates, when compared to the clinician-supported, eTherapy service.

In terms of differences between the sites, a lower number of clients accessed and completed the service in site B (159) compared to site A (335). This may be explained by the site A service serving a larger population area and therefore generating more referrals. Additionally, data from clients that had accessed a blend of interventions in the site B service as opposed to eTherapy as a monotherapy/stand-alone intervention, were specifically excluded from the study. This may also have given rise to the lower numbers of clients entering the service and completing at site B.

Higher TT recovery and reliable recovery rates were found in site A compared to site B, however when controlling for baseline severity, which was higher in site B, there was no statistical difference between these outcomes for the two sites.

Additionally, clients attending more than nine sessions achieved better clinical outcomes with a significantly higher percentage of clients attending more than nine sessions in site A than clients in site B. A dose dependent relationship between effect size and eTherapy treatment sessions has been previously reported, with larger effect sizes found associated with a greater number of treatment sessions (Deng et al., 2019).

4.2 Strengths and limitations

Whilst the findings of this evaluation are promising, the study is not without its limitations, which warrant discussion. Firstly, clients were not randomly assigned to the comparing sites, stratified over measured confounders (such as waiting times and number of contacts attended), and therefore it is not possible to definitively determine whether any changes observed in symptom severity of clients were attributable to the intervention, or other factors, such as the passage of time, supporter effect etc. Regarding the latter, whilst there was a large client sample due to the site covering a larger population and geographical area, the study entailed a relatively small number of eTCs, therefore outcomes could have been affected by supporter attributes.

Another weakness of the study was that clinical outcomes were not assessed beyond postintervention, so it was impossible to determine if effects derived from accessing the intervention by clients were maintained in the long term. There is in general a scarcity of empirical literature on the lasting effects of eTherapy, and a need for further research in this area (Palacios et al., 2022).

These points considered, the study had a large sample size of 455 and utilised standard NHS TT outcome measures. The study also reports on both clinically and statistically significant findings; a strength since research often focuses on the latter thereby failing to address the clinical and practical importance of results (Nordahl-Hansen et al., 2018).

4.3 Future research implications

In this study, we are unable to investigate what factors those with lived experience undertaking non-clinical support roles in eTherapy bring and how these impact on clients accessing the service and their outcomes. This could be examined by future qualitative inquiry. Furthermore, there is still a need to identify what the gold standard is in regard to the training and support of non-clinicians, such as ETCs in the delivery of eTherapy services. Additionally, as this study did not explore the impact of the method of delivery of support, i.e., whether it was provided by email, in person, online or by telephone, further investigation of this would have been helpful. That said, an RCT however comparing the effect of two types of support on severity of symptoms (Titov et al., 2009) found good client outcomes with equivalent patient acceptability, suggesting that support delivery method may not be as important a factor on which to focus.

4.4 Clinical and service implications

The study of real-world delivered, non-clinician supported eTherapy services has been typically limited (Adelman et al., 2014) despite its roll-out being recommended more than two decades ago (Cavanagh et al., 2011b). Instead, clinician-supported models, which are specified in TT guidance for providers of TT services on running an efficient service (NHS England, 2024) have become the dominant model of delivery in recent years. This is at a time when recognition of the role that peer support plays in mental health service delivery has substantially grown with mental health policy focus on the expansion and diversification of the peer-support workforce (Health Education England, 2017). Indeed, non-clinician, and peer-supported eTherapy models have yet to become widely adopted and incorporated into mainstream practice, despite their potential being clearly demonstrated in this study, and in others (Cavanagh et al., 2011a, b, Gellatly et al., 2018, Nissling et al., 2020, Fortuna et al., 2020).

The implication of this study is that eTherapy could be supported by non-clinicians such as ETCs, including those with lived experience of mental health operating in peer support roles. This is particularly relevant and timely given the current mental health workforce shortages of clinicians along with growing demand for support for common mental health problems, such as anxiety and depression. This finding therefore has significant public health, mental health and TT workforce implications.

In this study, we are unable to investigate what specific factors and support attributes those with lived experience undertaking non-clinical support roles in eTherapy services bring, and how these might impact clients accessing such services, including any potential impact on outcomes. This is something that could be examined further. Additionally, there is still a need to identify what the best training and support model is for non-clinicians delivering eTherapy services and what impact, if any, the mode of delivery of support has.

The results of this real-world service evaluation provide important evidence that clients accessing eTherapy services when supported by non-clinicians such as ETCs, can achieve comparable outcomes to eTherapy services supported by clinicians, in this case, PWPs.

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