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# Cognitive Behavior Therapy for psychosis based Guided Self-help (CBTp-GSH) delivered by frontline mental health professionals: Results of a feasibility study

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#### ABSTRACT

Availability of Cognitive Behavior Therapy for psychosis (CBTp) is limited in spite of strong evidence base. The purpose of this study was to determine the feasibility of a CBTp based Guided Self-help (CBTp-GSH) in comparison to Treatment As Usual (TAU). The secondary outcomes were a reduction of symptoms of schizophrenia using Positive and Negative Symptom Scale (PANSS) & Disability (WHO DAS 2.0). A total of 33 adults with a DSM-IV diagnosis of schizophrenia was recruited from community mental health services in Kingston, ON, Canada, and randomly assigned to the 12-16 week intervention with TAU (Treatment), or TAU alone (Control). End of therapy (16 weeks) comparisons between the two groups were made on an Intention To Treat (ITT) basis. Postintervention scores on measures of psychopathology were compared using Analysis of Covariance (ANCOVA) to adjust for baseline measurements. Recruitment proved feasible, retention rates were high and participants reported a high level of acceptability. There was significant "treatment group by outcome interaction" for Positive and Negative Symptoms, General Psychopathology, measures of disability, such that individuals who received the Treatment improved more than those in Control group. The results of this feasibility study indicate that CBTp based Guided Self-help is feasible and acceptable to the participants, and it can lead to improvement in psychopathology and the level of disability. Individuals in this study had a moderate degree of psychopathology and relatively low level of disability and, therefore, caution is warranted in applying these results to individuals with severe symptoms and with high levels of disability. An adequately powered randomized controlled trial of the intervention is warranted.

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#### 1. Introduction

Cognitive Behavior Therapy for psychosis (CBTp) has been found to be effective in the treatment of schizophrenia and related disorders (Burns et al., 2014; Hutton and Taylor, 2014; NICE, 2014; van der Gaag et al., 2014). The National Institute of Health and Care Excellence (NICE) in England recommends that all patients suffering from Schizophrenia be offered at least 16 sessions of CBT on a one-to-one basis (NICE., 2014). However, the availability for CBT remains severely limited even in high-income countries such as UK (Kingdon et al., 2004). Availability of trained therapists is a major barrier in providing this

form of treatment in North America (Lecomte and Leclerc, 2007; Mueser and Noordsy, 2005). Self-help interventions can overcome this gap and improve the access to CBT for psychosis. Self-help resources are cheap, flexible and easy to use (Cuijpers and Schuurmans, 2007). These might be a suitable option for hard to reach populations, and can easily be incorporated into a stepped care model of delivery of CBT.

There is no precise definition of self-help and guided self-help interventions for psychosis. Bower et al. (2001) defined self-help as interventions which are "designed to be conducted predominantly independently of professional contact". In a recent Cochrane review, we described "Self-help" as "a therapeutic intervention that is based on a sound theoretical background, that uses therapeutic principles from an evidence-based intervention, and is administered through a "media" that does not involve direct contact with another person". The "Guided Self-help" can be defined as 'Self-help that involves

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facilitation of the self-help by a lay person (e.g., a carer) or by a health professional with minimum direct contact (<25% of the regular therapy session time)'. Contact between individual and the other person can take place face-to-face or by telephone, email, or another communication method (Naeem et al., 2015a, 2015b, 2015c).

Self-help approaches have been used to help individuals with schizophrenia for many years (Galanter, 1988; Posner et al., 1992; Snowdon, 2009). It has been suggested that self-help groups might help individuals with schizophrenia (Noordsy et al., 1996; Kingdon et al., 2004). Self-help books based on sound therapeutic principles (Freeman, 2006; Hayward, 2012; Turkington et al., 2012) have been published. However, research on self-help interventions in Schizophrenia has lagged considerably behind other psychiatric disorders such as depression and anxiety (Lewis et al., 2003). A recently published meta-analysis (Scott et al., 2015) has highlighted the potential for selfhelp interventions, especially the guided self-help for psychosis. This meta-analysis reported self-help interventions using a wide range of interventions, with many approaches ranging from psychoeducation to CBT, using traditional face-to-face, paper, and online formats. Although two of the included studies tested the effects of online interventions based in CBT (Granholm et al., 2012; Gottlieb et al., 2013), none utilized a manualized self-help intervention underpinned by CBTp theory. The authors identified this as a knowledge gap and highlighted the need for research in the development and evaluation of self-help interventions based on CBTp.

Certain components of CBT such as monitoring own thoughts, feelings or behaviors, and homework that facilitates the application of what has been learned in therapeutic sessions to the real world (Haarhoff and Kazantzis, 2007; Kazantzis et al., 2003) can be considered as self-help techniques. In fact, Lewis et al. (2003) argued that therapies such as CBT are essentially self-help in nature, and the therapist role is that of the teacher. In self-help interventions, the patient can take responsibility for self-management. This can contribute to empowering the patient and enhance their sense of control over the illness, which is crucial in a psychotic illness, where patients may consider themselves as a helpless victim of hallucinations and other overwhelming experiences. Therefore, it can be argued that Self-help or Guided Self-help interventions based on CBTp principles may be feasible to develop and evaluate in schizophrenia.

However, to date, there has been no clinical trial that has evaluated the effects of CBTp Self-help or Guided Self-help, based on CBTp in individuals with schizophrenia. This paper reports the feasibility of a CBTp based Guided Self-help (CBTp-GSH) intervention, as well as an initial estimate of the effects of the intervention on psychotic symptoms and disability.

#### 2. Methods

#### 2.1. Study design and setting

This pilot study used a randomized, single-blind, controlled trial design. It was conducted from July 2014 to June 2015. The trial protocol was approved by the local institutional review board at Queens University, Kingston, Canada. After a full description of the study, all participants provided written informed consent before entering the study.

#### 2.2. Inclusions and exclusion criteria

Individuals were included if they were  $\geq$  18 years, had finished at least the high school, diagnosed with schizophrenia according to DSM-IV, engaged with mental health service, were considered stable for at least six months and had a case manager. Individuals with substance dependence, organic brain syndrome or intellectual disability were excluded. Those with high levels of disturbed behavior, high risk of suicide or homicide based on clinical impression were also excluded.

#### 2.3. Participants

Individuals with schizophrenia or related disorders were recruited from community-based treatment programs in Kingston, Ontario, Canada. Participants were identified by their health workers initially. Those considered suitable were then contacted by a member of the research team and invited to participate in the study. Consenting participants were randomly allocated to one arm of the trial. Participants had a mean age of  $40.5~(\mathrm{SD}=11.7)$  years. Briefly, the sample comprised 48% female, 88% white, 6% African, and 6% of individuals from other ethnic groups. Most of the individuals (82%) were single or divorced (6%). More than half (64%) of the participants had attended college or university while the rest had completed high school. The majority were employed (76%).

We enrolled 33 individuals, assigned randomly to the Treatment group (N = 18) or the Control group (N = 15). Five persons withdrew from the study (3 from the intervention and two in the control arm), leaving 28 individuals who completed all study procedures. Out of three dropouts from the Treatment group; 1 attended only one session, another attended 3, and the third person attended five sessions. Of the total dropouts one individual withdrew the consent (Control group), two moved out of the area (Treatment groups), another person from the control group was admitted to the hospital, and one individual from the Treatment group returned to full-time employment and could not attend.

#### 2.4. Procedures

Clinical staff identified 64 individuals who could potentially meet the inclusion criteria for the study. Research staff contacted this group, and 51 expressed interest in participating in the study. Out of 38 individuals considered suitable after the initial assessment, 33 consenting individuals participated in the study.

Individuals who met inclusion criteria were randomly assigned to either the CBTp-GSH plus Treatment As Usual (N=18) or Treatment As Usual (TAU) (N=15) only. Randomization was performed using computer-generated numbers from a website (www.randomization. com). Block randomization with randomly permuted block size was used to ensure similar numbers of participants were allocated to each arm of the trial.Individuals were allocated to either Treatment or the Control arm by the staff who were independent of the assessment team.

#### 2.5. Outcome measures

#### 2.5.1. Assessment of feasibility

Feasibility was assessed through recruitment, retention and feed-back from participants and the professionals. Pparticipants at the end of the intervention were asked to describe their experience. They were also requested to name the sessions that they found the most helpful or unhelpful and suggestions to improve the intervention.

#### 2.5.2. Assessment of clinical outcomes

Outcome assessments were carried out by raters independent of those providing the.

intervention and blind to the intervention allocation and compliance. The following assessments were performed at baseline and 16 weeks: the PANSS (Positive and Negative Syndrome Scale for Schizophrenia) & the PSYRATS (Psychotic Symptom Rating Scales) to measure psychopathology, and the WHO (World Health Organization) Disability Assessment Schedule 2.0 (WHODAS 2.0) to measure disability.

Positive and Negative Syndrome Scale for Schizophrenia (PANSS) (Kay et al., 1987) is a widely used, well established and comprehensive symptom rating scale, measuring mental state. It has 30 items, each measured on a seven-point rating instrument. There are three subscales (Positive Symptoms, Negative Symptoms, and General Psychopathology) along with a total score.

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Psychotic Symptom Rating Scales (PSYRATS) (Haddock et al., 1999) is a 17 item interviewer scored instrument which consists of 2 subscales (PSYRATS Voice, PSYRAT Delusion) which measure the severity of a number of dimensions of auditory hallucinations and delusions including the amount and intensity of distress associated with these symptoms. The 11 item hallucination subscale consists of items such as frequency, duration, loudness, negative content, intensity of distress and degree of disruption. The six item delusion subscale (PSYRATS delusion) consists of items such as the amount of pre-occupation, degree of conviction, intensity of distress and disruption. All items are rated on a five-point scale of increasing severity (0 = No problem to 4 = Maximum severity).

WHO Disability Assessment Schedule 2.0 (WHODAS 2.0) (Üstün et al., 2010) is a self-report questionnaire that assesses disability and

**Box 1** Salient features of the intervention.

No of meetings	Number, & title of handouts and worksheets	What happens in meetings		
2	1a What is CBT?, 1b what is psychosis? 1c Is it normal to have psychotic symptoms? 1d Making sense of my symptoms (formulation)	These meetings involve assessment, formulation, agreeing on a problem list and an individualized therapy plan. It also includes education on psychosis and CBT. A formulation using a bio-psycho-social approach is shared with the person. Psychosis handout does not use stigmatizing terms (e.g., unusual beliefs instead of delusions)		
1	2 Managing stress & anxieties	The stress - vulnerability model is shared and in addition to the handout, a relaxation CD is shared		
3	3a Activities and well-being, 3b Activity diary	The person is provided with information on behavioral activation, and an activity diary to complete. For the next two weeks both the guide and the person work together to bring a		
2	4a Understanding voices, 4b How do voices affect me? (formulation, worksheet), 4c. Dealing with voices (Voice Diary)	balance into activities Information is provided regarding voices, followed by 5 areas, formulation in which voices are considered to be triggers or events. The person is given voice diaries to complete in the next week. The person is encouraged to use coping strategies described invoices handout.		
1	5a Understanding suspicious thinking and unusual beliefs, 5b How does suspicious thinking affect me (formulation)?	Brief information is provided regarding suspicious (paranoid) thinking and unusual beliefs (delusions) in a non-judgmental way. A 5 areas, formulation of suspicious thinking is shared with the person		
3	6a Thinking about thinking, 6b Challenging unhelpful thought, 6c Creating a balanced thought, 6d1–3 thought diaries	Thought diaries and suspicious thinking are linked here with a five areas approach. A person is guided through the use of thought diaries to recognize and challenge unhelpful thoughts and to create a balanced thought.		
Additional handouts	9a physical symptoms, 9b unhelpful ways of thinking, 9c food and mood, 9d problem solving, 9e conflict management, 9f assertiveness 9 g avoidance and exposure	These handouts can be given at any point during the course of intervention. These include helping with physical symptoms (sleep, weight, reduced libido), solving their problems, help with the relationships and dealing with avoidance.		

functioning in the prior month. The WHODAS 2.0 was developed to assess six different adult life tasks: 1) Understanding and communication; 2) Self-care; 3) Mobility (getting around); 4) Interpersonal relationships (getting along with others); 5) Work and household roles (life activities); and 6) Community and civic roles (participation). There are 36 and 12 items versions of the WHODAS 2.0. We used the 12 item version for this study.

#### 2.6. The CBTp based Guided Self-help (CBTp-GSH)

The authors have adapted CBT for hard-to-reach populations (Naeem et al. 2015a; Naeem et al. 2015b; Rathod et al., 2013). Based on their extensive field experience, they developed guided self-help interventions based on principles of CBT for psychosis (Kingdon and Turkington, 2008) (please see Box 1 for salient features of this intervention). The assessment followed a formulation, which was shared with the individual. This formulation leads to a list of agreed problems, which were prioritized and formed the basis of delivery of self-help intervention. The self-help material was provided weekly using handouts and worksheets. Health professionals were advised to work flexibly, taking into consideration individuals' level of motivation and difficulties with concentration. Short sessions were preferred over long sessions, and it was possible to repeat the sessions if required.

This CBTp-GSH consisted of a total of 17 handouts and eight worksheets, that could be flexibly given by a health professional over 12–16 sessions. The handouts focused on psycho-education, dealing with hallucinations, paranoia, changing negative thinking, behavioral activation, problem-solving, improving relationships and communication skills. While handouts on hallucinations, paranoia, negative thinking, and information sharing were essential, the rest could be used flexibly based on an individualized help plan agreed between the health professional and the individual.

Health professionals were trained in formulating and devising a plan to suit the individuals' particular needs. The intervention was then delivered according to this plan. Once the therapy plan had been agreed upon, further sessions could be given by various team members, rather than one dedicated person. Carers were encouraged to participate and support the individual. The health professionals were provided detailed guidelines for using the intervention. They received half day training in using intervention and were also supervised weekly. During a typical session, the health professional spent approximately 15–30 min talking about the intervention. This included feedback from the last week, information on next week's handout, and addressing any barriers to working on handouts.

#### 2.7. Statistical analyses

SPSS frequency and descriptive commands were used to measure descriptive statistics. SPSS explore command was used to measure normality of the data, using histograms and Kolmorogov-Smirnov test. Comparisons between the two groups were made on an Intention-To-Treat basis (ITT). For an ITT analysis, participants were included in the groups to which they were randomized regardless of how long or even whether they received the treatment allocated to or not. Missing values were imputed using last observation carried forward (LOCF) method. Continuous variables (for example, the questionnaire scores at baseline) were compared using t-tests while categorical variables (for example, gender) were compared using Chi-Square or Fishers test. End of therapy scores on various outcome measures between the Treatment and the Control groups were compared using an Analysis of Covariance (ANCOVA) to adjust for baseline scores. As SPSS gives partial eta Square for effect size, we calculated the effect sizes separately.

#### 3. Results

#### 3.1. Feasibility: recruitment, retention & acceptability

#### 3.1.1. Recruitment and retention

Recruitment to the intervention was successful. The study generated much interest and 64 individuals were identified by the staff within two weeks. Of this 80% agreed to participate in the study. Eighty-seven percent (33/38) of these participated in the study.

Retention to the intervention group was excellent, with 83% (15/18) attending more than 12 sessions. Of the three dropouts, one moved to full-time employment while the other two moved out of the area. Retention to the control group was nearly 87%.

#### 3.1.2. Treatment acceptability

Informal feedback from the participants and the professionals was positive, who described the intervention to be acceptable and helpful. Almost all those who completed the study reported the intervention to be easy to read and understand. Of those who completed the intervention, almost all the participants (14/15) described the session on normalization to be the most helpful. One participant, in particular, described watching the movie "A Beautiful Mind", as part of the normalization session, to be very emotional experience, but something that helped him to motivate himself. Other popular sessions included; stress management (12/15), dealing with paranoia (11/15) and dealing with voices (11/15). Box 2 describes the common themes derived from this informal feedback.

Baseline demographics and clinical characteristics of the individuals are shown in Table 1. There were no statistical differences in any baseline values between the two groups.

At baseline, the sample experienced moderate symptoms of schizophrenia [for PANSS (Positive Symptom subscle, Mean = 13.5, SD = 6.0; Negative Symptom subcale, Mean = 12.2, SD = 5.8; and General Psychopathology, Mean = 24.5, SD = 10.6); for PSYRAT (Delusion Scale, Mean = 9.4, SD = 5.4; Hallucination Scale, Mean = 12.2, SD = 12.7); and for WHO DAS 2.0, Mean = 23.0, SD = 4.8]. Table 2 shows end of intervention assessments

#### 4. Discussion

To the best of our knowledge, this is the first study to investigate the impact of a CBTp based manualized guided self-help for people with psychosis. Our preliminary findings are threefold: (1) Guided self-help

**Box 2** Feedback from the participant.

Positive views (15/15)	I am so happy I did it
	I wish I had learned this stuff long ago
	I learnt new skills. I had heard of CBT. But did not
	expect it to be so good.
	I am not jumping to conclusions all the time now
	I feel strong and confident
	I feel more in control of the voices
	I learnt to look for the evidence
	My wife told me I am not so easily stressed now
	Can you help J*** (girlfriend) too
Negative views (3/15)	There is too much to read
	The pictures are not good quality
	My case manager was not able to answer all my
	questions
Suggestions to improve	There should be more colours and more images. It
intervention (6/15)	looks boring.
	The text is small
	You should add more examples
	You should make some YouTube videos
	Breathing exercises should be downloadable. I don't
	have a CD player
	You know what, you can make an ebook or even an
	app so that I can use it on my mobile
	11

**Table 1**Differences in demographic variables and psychopathology between the treatment and the control groups at the baseline.

Variables	Intervention group (CBTp + TAU) (n = 18)	Control group (TAU) (n = 15)	Person X <sup>2</sup> or t value	p value
Demographics				
Age	42.0 (11.53)	38.6 (12.03)	t = 0.83	0.41*
Gender				atori.
Female	10 (55.6%)	6 (40.0%)	$X^2 = 0.79$	0.37**
Ethnic group				ale ale ale
White	14 (77.8%)	15 (100%)		0.15***
Black	2 (11.1%)	0 (0.0%)		
Other	2 (11.1%)	0 (0.0%)		
Relationship status				***
Single	13 (72.2%)	14 (93.3%)		0.15***
Married/common law	4 (22.2%)	0 (0.0%)		
Divorced	1 (5.6%)	1 (6.7%)		
Education				***
School	6 (33.3%)	6 (40.0%)		0.21***
College	12 (66.7%)	7 (46.7%)		
University	0 (0.0%)	2 (13.3%)		
Employment				***
Employed	14 (77.8%)	11 (73.3%)		1.00***
Unemployed	4 (22.2%)	4 (26.7%)		***
Family history of mental	14 (77.8%)	9 (60.0%)		0.44***
illness				
Psychopathology	5 (25 00)	4 (00 700)		4 00***
Drugs/Alcohol	5 (27.8%)	4 (26.7%)		1.00***
WHODAS 2.0	22.17 (4.46)	24.13 (5.15)	t = -1.17	0.24*
PSYRAT_Hallucination	10.66 (13.37)	13.93	t = -0.72	0.47*
DCVDAT Delucies	0.50 (5.00)	(12.27)	4 0.10	0.85*
PSYRAT_Delusion	9.56 (5.98)	9.20 (4.96)	t = 0.18	0.85
PANSS_Positive	13.39 (7.40)	13.73	t = -0.16	0.87*
PANSS_Negative	11.94 (6.03)	(4.30) 12.47	t = -0.25	0.80*
· ·	. ,	(5.79)		
PANSS_General	23.72 (6.99)	25.47 (14.02)	t = -0.46	0.64*

The figures for demographic details are; for age Number (Mean) Standard Deviation, while the rest are Number (%). For psychopathology all figures are Number (Mean) Standard Deviation except for Drugs/Alcohol which is number (%).

is a feasible intervention for persons with psychosis; (2) Cognitive Behavior Therapy for psychosis (CBTp) can be delivered in a Guided self-help format, and (3) it appears promising in reducing psychopathology and disability.

Traditional face to face CBTp has been shown to be effective for those with psychosis. It is not possible to compare the face to face CBTp with the self-help or even guided self-help interventions. The main difference between self-help and guided self-help is the availability of a facilitator for face to face contact. Increasingly self-help approaches have been developed using digital media, such as the internet or mobile phones (Donker et al., 2013; Hedman et al., 2012). Self-help approaches require greater autonomy and motivation by patients. Unlike traditional CBT, which has been used in all phases of schizophrenia, the self-help approaches may only be suitable for a selected group of patients who have mild to moderate levels of psychopathology, are motivated, and have the cognitive ability to read and act on self-help material. If the efficacy is established in larger trials, self-help interventions may be particularly helpful for those presenting with mild to moderate symptoms of psychosis as part of an early intervention strategy. Use of guided self-help might improve engagement in this group.

Of particular note are the high effect sizes our study, compared with the overall effect sizes reported in recent meta-analyses (Wykes et al., 2008; Scott et al., 2015). This, however, needs to be interpreted cautiously. The sample size in our study was limited, as this was not

<sup>\*</sup> p value using t-test.

<sup>\*\*</sup> p value using Chi Square test.

<sup>\*\*\*</sup> p value using fisher's exact test.

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 Table 2

 Differences between the treatment and control groups, both uncontrolled and controlled for initial differences. Analyses were carried out using an ANCOVA. Reduction in scores means improvement.

	Differences between treatment and control groups at the end of therapy		Mean differences controlled for baseline					
	TAU M (SD)	Intervention M (SD)	Mean difference (CI)	Partial eta sq	(df) F	Cohen's d	p* value	
PANSS_Positive	11.20 (5.00)	6.89 (4.38)	-4.32(-07.70, -0.93)	0.18	(1,30) 6.77	0.91	0.014	
PANSS_Negative	12.20 (5.91)	7.72 (6.73)	-4.06(-7.11, -1.00)	0.19	(1,30) 7.35	0.70	0.011	
PANSS_General	23.20 (12.25)	13.33 (8.89)	-9.63(-17.24, -2.03)	0.18	(1,30) 6.68	0.92	0.015	
PSYRAT_Hallucinations	22.87 (8.03)	9.78 (12.56)	-11.55(-5.05, -18.05)	0.30	(1,30) 13.18	1.24	0.001	
PSYRAT_Delusions	9.0 (4.88)	4.83 (5.37)	-4.33(-7.57, -1.09)	0.19	(1,30) 7.47	0.81	0.010	
WHODAS 2.0	23.46 (3.09)	12.27 (7.29)	-10.52 (-14.65, -6.40)	0.42	(1,30) 27.15	1.99	0.000	

<sup>\*</sup> p values calculated using ANCOVA, M = Mean, SD = Standard Deviation.

essentially an efficacy trial. None of the participants had previously received CBTp. It is possible that the participants recruited in this study were more motivated for change, given the novelty of intervention. This needs further exploration with larger sample size and adequate controls including those using standard CBTp. Individuals in our study had a moderate level of psychopathology and disability. They were also educated and engaged with the services.

We found that the trial was feasible, as shown by excellent rates of recruitment, high retention rates and participants reports of the high level of acceptability. This may be due to a number of factors which may make face to face therapy less practical compared to self-help therapy, such as the costs of therapy, transportation difficulties, and issues with childcare (Mohr et al., 2006; Mohr et al., 2010). Lack of face to face contact may also be associated with lesser fear of disapproval and stigma and a greater sense of autonomy. However, engagement with self-help interventions is relatively poor (Donkin et al., 2011) and needs further investigation. This study provides some evidence to confirm the finding that Guided self-help is highly acceptable (Scott et al., 2015).

There are a number of barriers to engagement with self-help interventions, which need to be considered in further development of the interventions. These include patient's knowledge about mental health in general and psychosis in particular. The explanatory models of illness in psychosis may result in misattribution of symptoms to factors such as supernatural forces; that may hinder therapy (Bhikha et al., 2012). The perception of self-help interventions by service users as a 'lesser' form of treatment that cannot address the complex issues associated with psychotic illness may also hinder engagement with therapy. Lack of insight that might prevent individuals with psychosis in seeking help and cognitive deficits which are now well known to be associated with Schizophrenia can further complicate the uptake of treatment. Clinicians may have similar concerns with low expectations of improving outcomes. Also heavy workload, time pressure and the need for specialist staff to support these interventions (Prytys et al., 2011) can become a barrier to engaging patients in self-help interventions. Future development of CBT based self-help interventions should take into account these barriers in future research. It is important that self-help based CBT is not developed as a second rate cheaper option but as a priority treatment for those who are motivated to engage and take control of their illness.

Several study limitations are noteworthy. This was a small-scale study that focused on the feasibility of the intervention. However, we were not able to conduct detailed acceptability of the intervention, using qualitative interviews. Although there were improvements in various health measures, no prior power calculations were conducted. Given this, future research may seek to test this intervention in larger, well-designed studies, and with long-term follow-ups.

This study has several implications for clinical practice and research. If the results are confirmed in the larger trials, this may help to overcome the large treatment gap in the demand for CBTp for schizophrenia.

The guided self-help interventions can also be delivered using digital technologies. There is a need to refine the self-help techniques, psychotherapy process and include patient-reported outcomes, and to find out the predictors of good response to self-help. Future trials can also look into combining it with other evidence-based approaches, e.g., Cognitive Remediation Therapy, that has been found to improve cognitive deficits, but not psychopathology (Wykes et al., 2011). Similarly, self-help and brief CBTp interventions can be tested in real world in a stepped care model of delivery of CBTp.

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#### Conflict of interest

None

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