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# Feasibility and Benefit of Cognitive Behavioural Therapy for Psychosis via Teleconsultation in Indonesia: A Case Study of a 40-Year-Old Schizoaffective Disorder Patient

Bianca Sutjiono<sup>1\*</sup>, Shafira Fawzia Ahmad<sup>1</sup> and Edo S. Jaya<sup>1,2</sup> 

<sup>1</sup>Indonesian Psychological Healthcare Center, Jakarta, Indonesia and <sup>2</sup>Faculty of Psychology, Universitas Indonesia, Depok, Indonesia

\*Corresponding author: Bianca Sutjiono, Indonesian Psychological Healthcare Center, Jakarta, Indonesia.

Email: [biancasutjiono@indopsycare.com](mailto:biancasutjiono@indopsycare.com)

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## Abstract

Whilst Cognitive Behavioural Therapy for Psychosis (CBTp) has been found to reduce psychotic symptoms, most evidence supporting its implementation originates from studies in Western and high-income countries. Furthermore, questions remain regarding the efficacy of CBTp conducted via teleconsultation. Herein we report an ongoing case in Indonesia involving an individual with schizoaffective disorder, who received 60 sessions of CBTp over seven months. Sessions were delivered via a combination of voice and video calls. The patient, a 40-year-old male, was diagnosed with schizoaffective disorder at the age of 26. He exhibited symptoms of paranoid and religious delusions, hallucinations (auditory, visual, and somatic) and disorganised speech during our intake interview. Negative symptoms were not apparent. In the 14 years prior to our initial consultation, the patient was prescribed antipsychotics and demonstrated good adherence. He had no history of psychotherapy independent of our clinic. Treatment involved CBTp techniques, including psychoeducation, a symptom diary, relaxation, and behavioural experiments. Study outcome was assessed with Psychotic Symptom Rating Scales. Both hallucination and delusion subscale scores improved 53% from 53 at intake to 25 during an assessment administered 6 months later. Results from this study demonstrate that the CBTp is both feasible, and beneficial, when conducted via teleconsultation in Indonesia.

**Keywords:** schizophrenia; case report; PSYRATS; Indonesia

## Introduction

Previous research has demonstrated the efficacy of Cognitive Behavioural Therapy for psychosis (CBTp) in reducing psychotic symptoms (Mehl, Werner, & Lincoln, 2015; Riehle, Böhl, Pillny, & Lincoln, 2020; Sitko, Bewick, Owens, & Masterson, 2020). Treatment guidelines in the United Kingdom recommend that CBTp be routinely offered to people with schizophrenia (National Collaborating Centre for Mental Health (UK), 2009). This recommendation prompted a series of new meta-analyses that examined various combinations of trial characteristics and measures, and initiated intense debate surrounding a number of peer-reviewed studies (Thomas, 2015). Consequently, a number of researchers began to question whether CBTp was oversold (McKenna & Kingdon, 2014). In light of the ensuing controversy, a recent individual-participant data meta-analysis launched an investigation into the effectiveness of, and moderators involved in, CBTp. Results indicated that, relative to other interventions, CBTp led to a greater reduction in total and general symptoms of psychosis (Turner et al., 2020). Specifically, CBTp was found to be comparably more efficacious at reducing positive symptoms through the mechanisms of befriending, cognitive

remediation, psychoeducation, and social skills training (Turner, van der Gaag, Karyotaki, & Cuijpers, 2014). Although one meta-analysis questioned the long-term effectiveness of CBTp for delusions (Mehl *et al.*, 2015), a more recent meta-analysis found that the intervention's effectiveness has improved over time (Sitko *et al.*, 2020). These findings suggest that CBTp should continue to be administered as a psychological intervention to patients with psychosis.

Important to note, however, is that most of the evidence-base for CBTp thus far originates from Western and high-income countries, risking Western centrism (Rathod *et al.*, 2017). Studies conducted in low- and middle-income countries (LAMICs) in Asia remain scarce. The lack of research conducted in these regions can generally be attributed to insufficient research networking, research culture, insufficient funding, and governmental policies (Sharan, Global Forum for Health Research (Organization), & World Health Organization, 2007; Zhang *et al.*, 2017). Furthermore, compared to high-income countries, people in LAMICs may endure heightened levels of psychotic experiences (Jaya *et al.*, 2020). This is unfortunate as these experiences are universally distressing (Wüsten *et al.*, 2018).

Evidence indicates that CBTp may be a feasible and effective treatment option for individuals from LAMICs. For instance, a randomised-controlled trial in China demonstrates that CBTp is effective at reducing psychotic symptoms (Li *et al.*, 2015). Likewise, a CBTp case study in Hong Kong finds that CBTp can effectively address psychotic symptoms (Ng, Cheung, & Suen, 2003). A feasibility study of culturally adapted CBTp in Pakistan, moreover, finds it to be both an acceptable and beneficial intervention (Husain *et al.*, 2016). Finally, a systematic review of the feasibility and acceptability of general psychosocial interventions for schizophrenia finds that psychosocial interventions are well accepted by patients and families in LAMICs, indicated by moderate-to-high levels of participation (Brooke-Sumner *et al.*, 2015).

Indonesia, a lower-middle-income country, faces obstacles in the logistics of healthcare distribution and delivery. Provisions for mental healthcare assessments, and any potential ensuing treatments, are limited. Unfortunately, adequate treatment is only available in a few community healthcare centres (Pusat Kesehatan Masyarakat, Puskesmas). Referral services are accessible at 33 community healthcare centres in 26 out of 34 provinces and in 16 private hospitals (Mahendradhata *et al.*, 2017). One of the major challenges faced in delivering mental health services is the lack of appropriately adapted evidence-based interventions, mainly due to inadequate resources and training (Rathod *et al.*, 2017). Moving forward, a proactive and positive initiative can be achieved through the creation of a logistical roadmap. This should include the implementation of a research-based psychological intervention, such as CBTp.

Questions regarding whether CBTp is feasible and beneficial in LAMICs in Asia, such as Indonesia, remain unanswered. Furthermore, given the current limitations necessitated by COVID-19 pandemic restrictions, it remains unclear as to whether CBTp can be administered via teleconsultation. Following is a case study of an adult diagnosed with schizoaffective disorder in Indonesia who is the current recipient of an ongoing CBTp via teleconsultation. The name and age of the patient have been anonymised.

## Presenting Problem

### *Reasons for Visit*

A 40-year-old man named John was brought to our practice by his brother for anxiety and recurrent psychotic symptoms that were compromising his social and functional abilities. Citing his intent to marry his romantic interest, who was unaware of his diagnosis, John felt it was time to address and manage his condition. E.S.J. conducted the intake interview for diagnostic and treatment planning, and then referred the patient to B.S. for case formulation and treatment under weekly supervision by E.S.J. During the first intake session, the Patient Health Questionnaire (PHQ) and diagnostic guidelines from ICD-10 were administered to confirm the diagnosis of schizoaffective disorder.

During the intake interview, patient complaints included paranoia (suspicions of continually being watched) and increasingly frequent distressing visual and auditory hallucinations that interfered with his work. John also experienced stress derived from the pandemic and subsequent lockdown that

resulted in economic hardship over a period of several months. The PHQ (Spitzer, Kroenke, & Williams, 1999) score during the intake interview revealed a positive screening for moderate generalised anxiety disorder (score of 9) but screened negative for somatoform (score of 5), and depression (score of 2), panic disorder, and alcohol dependence. The Psychotic Symptoms Rating Scale (PSYRATS, Haddock, McCarron, Tarrier, & Faragher, 1999) score for hallucination during the intake interview was 34 and the delusion score was 19. Thus, the total PSYRATS score was 53.

### *Help-Seeking and Treatment History*

This was not the first time John had sought help for his mental health, but his first time visiting a clinical psychologist (albeit, due to strong persuasion from his brother). His first contact with mental health professionals had been with a psychiatrist in Jakarta when he was 26 years old, in 2005, due to what seemed to be a psychotic episode. At the time, clinical psychologists were uncommon in Jakarta, Indonesia.

Prior to this, John had received pharmacotherapy for approximately 14 years and had attended monthly consultations with a psychiatrist. The patient had never received in-patient care for his mental health. He had initially been diagnosed with bipolar disorder and was only later diagnosed with schizoaffective disorder. Prior to his intake interview, the patient's psychiatrist had already prescribed him Quetiapine, Aripiprazole, Paliperidone, and Haloperidol, equal to 708 mg of Chlorpromazine (Woods, 2003). John had demonstrated generally good adherence to medication scheduling and consumption. He took his medication regularly as prescribed, with the exception of one incidence during treatment.

### *Patient Background*

John was the second child born to a family of high socio-economic class. Throughout his primary years, he attended a boarding school in Singapore in which he consistently ranked at the top of his class. His mother described him as an obedient child who demonstrated high academic achievement. He earned his bachelor's and master's degrees in London, United Kingdom. During his university years, he went to China for work experience for approximately 5 months, where he claimed he was severely bullied. Though the bullying cannot be verified, as he was alone in China, John reported this was the first time he experienced what he only later recognised were symptoms of his disorder. Upon his return to London, John's condition seemed to improve, and he once again became active in student life. During this time, he took up a leadership role in a student community in London.

After completing his master's degree in London, John returned to Indonesia to work at a multinational company. He cites this as the first time he possibly experienced a psychotic episode. Initially, he had difficulty falling asleep and would wake up in the middle of the night to the sight of ghost-like shadows. John often stayed up late into the night, muttering to himself, often appearing confused and restless. He began to frequently see things that others could not.

### *Symptoms and Problem Presentation*

Here, we describe the symptoms presented during the first three evaluation sessions and other relevant issues that were discovered during subsequent sessions. The prevalent symptoms that John experienced were positive symptoms (delusions, hallucinations, and disorganised speech), prevalent anxiety and guilt, and other problems such as sleep difficulties and lack of insight.

John's primary positive symptoms included delusions, hallucinations, and disorganised speech. The delusions were primarily paranoid and religious in nature. His paranoid delusions consisted of suspicions that various media outlets and intelligence agencies, such as the FBI, CIA, or Indonesian intelligence agencies, were colluding with evil powers to structure his life. He believed these forces were ensuring that he would be isolated, rejected, and ultimately lead an unsuccessful and unproductive life.

John's religious delusions comprised grandiose beliefs that he was a prophet, affording him the ability to engage in direct conversations and hold a dialogue with God. His auditory hallucinations were related to his religious delusions. John experienced voices commanding him, for example, to donate all his possessions ('God's' voice), and on other occasions, voices instructing him to harm himself ('Evil powers' voice). John also heard voices that would offer negative commentary, commenting on his choices and actions, and weighing upon his self-esteem. These comments would take the form of statements like, 'you will never make it through the day'.

While the voices were predominantly of a distressing nature, not all of them induced distress. An example of this exception is one of a quiet voice instructing him not to go on a walk on a particular day due to impending rain. His visual hallucinations took the form of fleeting shadows and patterns on objects, such as trees. In addition, he experienced somatic hallucinations including feelings of someone touching his head and moving his feet.

Interestingly, his disorganised speech was not immediately apparent. For instance, it typically only became noticeable 30 minutes into our psychotherapeutic sessions. This pattern of disorganised speech was confirmed by his brother and evidenced in John's everyday life. For instance, John's brother reported that he would sometimes be engaged for an entire day, participating in activities such as playing a half-round of golf, with his speech only becoming disorganised after talking non-stop for a period of more than 30 minutes to an hour.

The prevalent negative emotions comprised anxiety and guilt, which were related to his delusions and hallucinations. John could, on occasion, ruminate for an entire day upon hearing voices. He would become increasingly anxious when he was unable to decipher the voices as belonging to God or the devil. He would become guilt-ridden upon thinking he had heard God's commanding voice, yet felt he could not carry out God's commands due to his inability to differentiate the two voices. Conversely, John would be overcome if he perceived he had heard the devil's voice and misconstrued it as being the voice of God.

Other prevalent issues that he experienced involved functional impairments and sleep difficulties. John was a business owner who usually worked in an office for eight hours each day. In the few months preceding the intake sessions, however, the psychotic symptoms rose with such significance that John could only manage to work two hours per day. The sleep difficulties were early awakenings. John did not experience problems falling asleep and did not struggle with waking up in the middle of the night.

John demonstrated partial insight. He was aware that he was suffering from schizoaffective disorder, but only partially accepted that the voices he was hearing were part of the symptoms. He willingly attributed the distressing parts of his experience to psychotic symptoms, yet rejected the notion that the non-distressing parts were indicative of his condition. For example, he believed that hearing the 'devil's voice' could be explained by his psychotic symptoms. Conversely, he believed that hearing God's voice could be explained by his good faith. John wanted the devil's voice to disappear entirely but did not want to cease hearing God's voice. Importantly, he was afraid that the loss of God's voice may indicate a lack of faith on his part and lead to severe punishment in life.

In summary, the patient presented persistent positive symptoms of paranoid delusions, religious delusions, auditory hallucinations, visual hallucinations, somatic hallucinations, and disorganised speech. He possessed a general awareness of his diagnosis of schizoaffective disorder but had limited awareness of his symptoms. Consistent with reports from his family members, negative symptoms were not apparent during his sessions. John promised his family, particularly his mother and younger brother, that he would seek, and adhere to, psychotherapy for his condition. His mother and younger brother remain entirely supportive of his psychotherapy attendance.

## Treatment

The main goals of psychotherapy were to reduce both the frequency and severity of psychotic symptoms. The therapeutic roadmap comprised the incorporation of two main strategies. The first was

breaking the vicious maintenance cycle of psychotic symptoms and distress. The second was the strengthening of coping skills and emotional regulation skills to reduce psychotic symptoms triggered by daily pressures and negative emotions. An addition was the management of comorbidities that were identified throughout the course of treatment including depression, anxiety, and insomnia. The components of the intervention were tailored depending on the patient's specific symptom profile during a period of 1–2 weeks. We utilised CBTp techniques, as described in CBTp therapy manuals (Grezellschak, Lincoln, & Westermann, 2015; Lincoln, 2014; Morrison, 2017; Morrison & Barratt, 2010). Specifically, the following techniques were utilised throughout the treatment: psychoeducation, symptom diary, collaborative case formulation, behavioural strategies to manage symptoms, exploring negative automatic beliefs, and emotion regulation. The components of CBTp that were integrated into John's treatment are described in Tables 1 and 2.

As mobility became restricted due to the government measures enforced in response to the pandemic, sessions were conducted via teleconsultation by WhatsApp voice calls and WhatsApp video calls. WhatsApp was chosen because it was most convenient for the patient and therapist. The sessions were conducted in a mix of Bahasa Indonesia and English. The initial plan was to conduct a 1-h session every week; nevertheless, after the first three sessions, we found that John struggled to maintain focus as evidenced by his disorganised speech. Following his third session, his therapists separated the full-hour weekly session into two half-hour sessions per week, taking place each Monday and Thursday afternoon, for a total of 60 sessions over 7 months.

Adherence was poor in the beginning but improved with time. During the first 1 or 2 months, John occasionally forgot his appointments and frequently requested that we postpone a session, so he may

**Table 1.** Components of Cognitive Behavioural Therapy for Psychosis

Components	Goals
Psychoeducation	The goal is to help the patient understand and normalize his psychotic symptoms. One example is to educate that healthy individuals can hear voices, for example mistakenly heard someone calling.
Symptom diary homework	The goal is to help the patient understand his symptoms and later, develop case-formulation by himself. The symptom diary homework is encouraged to be done as detail as possible in describing his symptoms, starting with the volume of voices (as if someone is speaking to you or whispering or shouting), how distressing the voices might be, how frequent, and lastly to notice possible triggers that perpetuate specific hallucinations.
Collaborative case formulation	The goal is to help the patient understand how situations, thoughts, and emotions can trigger his psychotic symptoms. It is done collaboratively with the patient by discussing a recent situation or problem, thought process, emotions, and his psychotic symptoms.
Behavioural activation	The goal is to assist the patient to increase their level of activity. It is done by making a list of activities that the patient can do such as light exercises, hobbies, and basic self-care.
Relaxation techniques	The goal is to provide the patient with tools for anxiety management.
Behavioural experiment	The goal is to help the patient develop an alternative understanding of his psychotic symptoms. For example, the patient is encouraged to test a voice by doing and not doing what a particular voice commanded, so that the patient can understand the consequences of following or not following a particular voice.
Exploring negative automatic beliefs	The goal is to help patients find alternative explanations of situations that are less distressing.
Emotion regulation	The goal is to help patient identify and manage his negative emotions. Specifically, the patient is guided to identify the five basic emotions and is provided with reappraisal and distraction techniques for emotion regulation strategies.

**Table 2.** Treatment agenda and significant patient status

Session	Agenda	Patient Status
1–3	Build rapport, initial diagnosis assessment	Diagnosis of Schizoaffective Disorder with comorbid Generalized Anxiety Disorder and Depression is made.
4–7	Psychoeducation & normalization of experience	Patient starts to share his symptoms in detail.
5–18	Symptom diary homework	Patient can differentiate his auditory and visual hallucination (volume, content, source).
19–23	Collaborative case formulation	Patient is now aware that his anxiety increased since the pandemic. Patient is now aware of how his lack of sleep and feelings of guilt, worry, fear, and anger impacted on his psychotic symptoms.
24–26	Relaxation techniques for anxiety (mindful breathing, grounding) & Behavioural Activation for depression	Patient is sceptical of the relaxation techniques and does it for the sake of therapy homework. Patient creates a consistent morning routine (light exercises) and a better sleep schedule
27–35	Behavioural experiment on hallucinations	Patient is now aware that his primary hallucination triggers are guilt and anxiety, and that some voices are generated internally.
36–38	Behavioural experiment on media and news	Patient develops an alternative perspective regarding the “messages” that used to make him paranoid from media and news. Patient is no longer receiving messages from media and news. Patient now uses relaxation techniques routinely.
43–50	Emotion regulation	Patient can now identify and tolerate guilt, fear, and anger. Patient starts to doubt whether he can communicate directly to God.
51–60	Exploring negative automatic beliefs (“unfriendly stares”)	Patient develops an alternative perspective to the ‘unfriendly stares’ and it no longer triggers anxiety. Patient also report some auditory hallucinations have suddenly disappeared.

Note. Session one to three duration is 60 minutes. Session four to sixty duration is 30 minutes provided twice per week.

be afforded an additional few hours to prepare himself. Nevertheless, around 3 months into treatment, John rarely missed a session and remained very punctual. A similar pattern was observed with his completion of his therapy homework. John needed several sessions to establish a routine for writing in his symptom diary.

Psychoeducation was provided throughout the therapy. Information explaining psychosis and schizoaffective disorder, coupled with the prevalence of voice-hearers, was accepted very well. Importantly, John displayed self-stigma and demonstrated that he was misinformed about psychosis. He believed that the aetiology of his illness stemmed from his misbehaviour and was part of a generational curse that his family had to endure. He believed that his condition could be recognised visually by both his staff and customers and, consequently, felt they belittled him, and deemed him unfit as a business owner. He also believed that, outside of his family, people would not be accepting him. John harboured fears that, should he have his own children, they would also inherit his condition. This was an unfortunate misconception that was regularly echoed by his own mother. John had deep reservations surrounding the human rights of people with schizoaffective disorder, adamantly believing that people with his condition were not worthy of the same basic rights; the ability to live a productive and fulfilling life would not be afforded to them due to their diagnosis. Collectively, the weight of discussing these deep-seated beliefs had an immense and visible impact upon John, who was unable to be swayed.



A symptom diary was assigned as homework and entailed the patient writing precisely what the voices said, without summarisation or self-interpretation. During sessions, we discussed his emotional reaction to the voices and his opinions regarding them. He was also gently encouraged to think about the different identities of voices and talk about the doubts he might experience regarding what he was hearing.

Emotional regulation techniques were introduced after John recognised his symptoms, emotions, and thoughts. It has previously been demonstrated that the ability to be aware of, tolerate, and accept emotions is predictive of how people with psychosis respond to stress. This relates not only to emotional responses but also to symptom increase (Lincoln, Hartmann, Köther, & Moritz, 2015). During the sessions that focused on emotional regulation, therapists started with information regarding basic emotions and proceeded to progress to the emotions that were of particular relevance to John (anxiety and guilt). He was guided to identify them, provide examples of the situations, and assess the intensity of his feelings during specific events. John was also asked if he felt these were precursors to specific symptoms. Following this, we introduced reappraisal and distraction techniques (Grezellschak et al., 2015).

The collaborative case formulation technique was implemented using cognitive models of psychosis (Peters et al., 2015). This was most useful in increasing insight and distress reduction. The key to the success of this method stemmed from the origin of the input: the patient rather than the therapist.

Behavioural strategies that were implemented during treatment included behavioural activation, relaxation techniques, and behavioural experiments. Behavioural activation in CBTp is typically utilised to help patients who lack the willingness or ability to engage in pleasurable and rewarding activities. These struggles may sometimes be the outcome of depression or negative psychotic symptoms, such as a lack of motivation (Choi, Jaekal E, & Lee, 2016). During treatment, behavioural activation was utilised to develop a morning routine that included light exercises and communication with friends. To manage anxiety, John implemented the relaxation technique that involved controlled breathing.

The behavioural experiment in CBTp functions as a framework for venturing out into society, testing ideas, and learning new facts, while simultaneously serving as one of the ways to monitor the accuracy of appraisals (Morrison, 2017). One example of a behavioural experiment during treatment took place when John was persuaded to place limitations upon the time he spent reading the news. He gradually reduced this from multiple times each day to only once a day. This was done with the intent of testing his delusional beliefs that foreign agents were communicating with him. He eventually concluded that 'It's just the news' and no longer believed that the news communicated either through, or to, him.

Negative automatic beliefs exploration was utilised with the intention of managing his emotional reaction to everyday situations. During one negative automatic belief exploration session, John disclosed his belief that people disliked him because of the 'unfriendly stares' from strangers he encountered on his morning walks. We discussed the various alternative interpretations of the situation. One alternative interpretation that he found acceptable was that others could be suffering their own, personal stresses at the time and *coincidentally* happened to make eye contact with him. After an in-depth discussion, he realised that few individuals on the street gave him 'unfriendly stares', and he eventually surmised that others could indeed be experiencing stress due to their own current economic situations, perhaps also brought upon by world events.

People with psychosis often endure comorbid disorders (Tsai & Rosenheck, 2013). During treatment, John demonstrated signs of major depressive disorder and generalised anxiety disorder. Consequently, we used behavioural activation techniques to manage his depressive episode and applied relaxation techniques to manage his anxiety. When his depression or anxiety symptoms became more significant, however, the work on his psychotic symptoms was largely put on hold. We included psychoeducation and collaborative case formulation techniques at intervals to reduce the anxiety derived from his psychotic symptoms that appeared more significant and uncontrollable during these periods.

After the implementation of the CBTp techniques described above, the treatment continued. We planned to provide psychotherapy for the management of another comorbidity that we suspected,

obsessive-compulsive disorder (OCD), namely the religious subtype. The plan was to administer the Yale-Brown Obsessive-Compulsive Scale (Goodman *et al.*, 1989) and provide the Exposure Response Prevention therapy for the OCD as recommended by a recent meta-analysis and systematic review (Ferrando & Selai, 2021). In conjunction, we planned to work with his psychiatrist to gradually taper off his medication, in accordance to the latest recommendation regarding the slow taper of anti-psychotics (Horowitz, Jauhar, Natesan, Murray, & Taylor, 2021). Furthermore, the frequency of sessions from two half-hour sessions per week was to be modified to a 1-h session per week, with a potential increase in the frequency of sessions in the event of a relapse.

## Outcome

Herein is a report of the primary outcome of the treatment in the form of PSYRATS (Haddock *et al.*, 1999) scores and qualitative clinical observations. The Jacobson–Truax approach was applied to compute a reliable change index (RCI) to ascertain whether the observed changes were reliable (Jacobson & Truax, 1991). The RCI was computed by dividing the difference between the pre-test and post-test scores by the difference's standard measurement error. The standard measurement error was obtained from the standard deviation of the baseline observation and the reliability of the measurement (Evans, Margison, & Barkham, 1998). Furthermore, included is a report of both the patient's and psychotherapists' opinions on the efficacy of therapy techniques.

The PSYRATS (Haddock *et al.*, 1999) is a semi-structured interview that assesses different dimensions of hallucinations and delusions. The inter-rater reliability coefficients from a Chinese version of PSYRATS was used (hallucination scale,  $\kappa = .92$ , delusion scale,  $\kappa = .95$ , and overall scale,  $\kappa = .94$ , (Chien, Lee, & Wang, 2017). There were 11 items on the hallucination subscale and six items on the delusion subscale, consisting of frequency, intensity, severity, amount and degree of distress, and functional impairment items. The symptom score was evaluated using a five-point ordinal scale (0–4, absent to severe).

Table 3 shows the PSYRATS scores from the initial to the late stage of treatment. Overall, the score decreased for both hallucinations and delusions. There was a 53% total score reduction, from 53 to 25, over the 6-month period. The total mean score of the PSYRATS at the initial stage was 3.12 ( $SD = 1.05$ ), the first stage was 2.47 ( $SD = 1.18$ ), the mid-stage was 1.76 ( $SD = 0.90$ ), and the late stage was 1.47 ( $SD = 0.87$ ). The RCI was .17. The totality of all reductions recorded on the PSYRATS score at each stage was above the RCI, and thus they can be considered as a reliable change.

The hallucination subscale dropped 53%, from a score of 34 to 16. All items improved: frequency (from at least once a day to at least once a week), duration (from hours at a time to fleeting voices), location (from sounding like the voices originated outside of the patient's mind to no voices present), beliefs regarding origin (from 100% conviction that voices were solely external to under 50% conviction), amount of negative content (from a majority of unpleasant voices to minority), degree of negative content (from comments relating to self-concept to less personal comments relating to self), amount of distress (from a majority of distressing voices to only occasionally distressing), and amount and intensity of distress (from a majority of voices distressing to occasionally and slightly distressing). The total mean score for the hallucination subscale at the initial stage was 3.09 ( $SD = 1.22$ ), the first stage was 2.82 ( $SD = 1.25$ ), the mid-stage was 2.00 ( $SD = 1.00$ ), and the late stage was 1.45 ( $SD = 1.04$ ). The RCI score was .27. Almost all reductions in hallucinations at each stage were above the RCI and can be considered a reliable change, with the exception of data collected between the initial and first stages.

Scores on the delusion subscale dropped 53% from 19 to 9. All items improved the amount of pre-occupation (pondering beliefs from roughly an hour per day dropped to once a day), duration of pre-occupation with delusion (thoughts related to delusions once lasting for up to hours at a time were reduced to seconds and became fleeting thoughts), conviction (from 100% conviction to some doubts relating to conviction in beliefs), amount of distress (from beliefs causing distress from the majority of incidents reduced to the minority of incidences), the intensity of distress (from beliefs causing intense distress to only causing moderate distress), and disruption to daily activities due to beliefs (from beliefs



**Table 3.** Psychotic Symptom Rating Scales (PSYRATS) Assessments

	Initial assessment	First-stage treatment	Mid-stage treatment	Late-stage treatment
<i>Hallucinations</i>				
Frequency	2	2	3	1
Duration	4	1	1	1
Location	4	4	1	0
Loudness	1	2	1	1
Beliefs on the origin of the voice	4	4	2	2
Amount of negative content	3	2	2	2
Degree of negative content	3	3	3	1
Amount of distress	4	4	2	2
Intensity of distress	4	4	1	1
Disruption to life	1	1	2	1
Controllability of voice	4	4	4	4
Total Hallucinations Score	34	31	22	16
<i>Delusions</i>				
Amount of preoccupation	3	2	1	2
Duration of preoccupation with delusion	4	3	2	1
Conviction	4	2	2	2
Amount of distress	3	2	1	1
Intensity of distress	3	1	1	2
Disruption of life caused by beliefs	2	1	1	1
Total Delusions Score	19	11	8	9
Total Hallucinations and Delusions Score	53	42	30	25

Note. The initial assessment was session one. The first-stage treatment was session 14, one month after session one. Mid-stage treatment was session 45, five months after session one. Late-stage treatment was session 58, six months after session one.

causing a moderate amount of disruption to daily life, including interfering with activities and social life, reduced to minor disturbances and minimal disruptions to activities and social functioning). The total mean score for the PSYRATS delusion subscale at the initial stage was 3.17 ( $SD = 0.75$ ), the first stage was 1.83 ( $SD = 0.75$ ), the mid-stage was 1.33 ( $SD = 0.51$ ), and the late stage was 1.50 ( $SD = 0.54$ ). The RCI was .10. All reductions in delusion scores at each stage were above the RCI. As such, these results may be interpreted as indicators of a reliable change.

Overall, hallucination and delusion scores decreased steadily and reliably in a linear manner. These changes were indicative that the patient's condition altered significantly, with results not attributable to measurement error (Evans et al., 1998). There were, however, anomalies to this pattern. Notably, the reporting of frequency of voices increased slightly during the mid-stage of treatment; however, a reduction was recorded in the late-stage assessment.

We observed continuous improvements from the early to late stages of treatment. During the beginning stages of treatment, it was incredibly difficult for John to express his symptoms and

speak about his problems. At first, John seemed extremely confused. By the mid-stages of treatment, however, a rapport had been established and it was at this juncture that in-depth discussions regarding the interrelations between symptoms, emotions, and environment were made. John described feeling empowered as he increasingly understood how his symptoms appeared and how he could reduce them by managing his anxiety and guilt. By the mid-stages, his adherence was excellent, concentration was outstanding, and incidences of disorganised speech were no longer apparent. On occasion, when we reviewed the symptom diary, John demonstrated the ability to grasp the psychological mechanisms of his symptoms independently.

In the late stages of treatment, the distressing voices became less frequent. In response to this improvement, John became terrified and reported feelings of emptiness. John had come to rely upon these intrusive voices as a safety mechanism, freeing him of psychotic episodes. He believed that if God did not command him to do things, then he may inadvertently engage in activities that God may dislike, and consequently be punished with a psychotic episode. Additionally, John reported feeling a moderate sense of control over his symptoms during the late stages of treatment. Interpersonal relationships also improved, particularly with issues surrounding trust. During the later stages of treatment, John felt he was able to disclose his mental health condition, and associated daily struggles, to his partner.

Overall, there was a notably significant reduction of interfering psychotic symptoms, including the absence of disorganised speech. The frequency and severity of his hallucinations and paranoid thoughts were minimised to the point that John felt relatively confident he had control over them. He no longer experienced functional impairment and was able to effectively run his company without struggling with his prior obstacles.

John found that some of the CBTp strategies he acquired were more beneficial than others. He found the symptom diary and relaxation techniques to be the most helpful. The symptom diary was instrumental in guiding John to the realisation that the voices he experienced were symptoms of his condition. Upon perusing entries in his symptom diary from previous months, John was able to understand that his former interpretation of events was not rational and that many things that occurred were purely coincidental. Relaxation techniques were deemed helpful in managing his anxieties, and John reported that the practice of regular deep breathing allowed him to experience calm.

Upon reflection, his therapists noted the benefits of rapport-building with John throughout both psychoeducation and case formulation. The first sessions played a crucial role in the establishment of mutual trust and in the gradual development of an understanding of his disorder. The therapist felt that it was paramount to prioritise the establishment of a rapport in John's case early on due to his general scepticism regarding psychotherapy. Other issues in the early stages that plagued John, including increased general alertness, suspiciousness during the pandemic, a misconception that he must not discuss his symptoms, and his paranoid and religious delusions, became more approachable topics of conversation once the groundwork involving the building of a mutual rapport was achieved.

When John had achieved a better understanding of schizoaffective disorder, he was able to talk about himself more openly. Case formulation helped both the patient and the therapist gain a better understanding of how John's psychotic symptoms caused distress and disturbance. This process provided the therapists with a clearer picture of John's issues and assisted in the location of the source of their perpetuation. The patient and the therapist were able to comfortably discuss formats and options regarding treatment, namely which CBTp technique to apply and when.

Both John and the therapist considered negative automatic belief exploration to be the least helpful. John felt that the process was sometimes too direct. As most of John's negative experiences related to his religious delusions, he felt the need to convince the therapist that his spiritual experiences were real. The rapport was, at times, perceived to be somewhat damaged following the process of negative automatic belief exploration.

## Discussion

This is a case study involving the delivery of CBTp via teleconsultation to a 40-year-old male diagnosed with schizoaffective disorder in Indonesia. Prior to coming to us, the patient had never received psychotherapy. At intake, he was consuming medication. After 30 h of CBTp, we observed reduced frequency and distress of psychotic symptoms, improved emotional regulation, better management of comorbidities, and improved functioning.

We found indirect strategies to be instrumental in the management of emotional regulation and comorbidities. The patient initially experienced difficulty when engaging in dialogue about his psychotic symptoms with his therapist as he harboured a suspicion that the therapist did not trust him. A plausible explanation can be derived from the findings of a previous experimental study, which indicates that individuals who experience intense fear of rejection are likely to demonstrate an increase in paranoid reactions when they believe they are failing to compete or maintain social standing (Ascone, Jaya, & Lincoln, 2016).

Our case study supports previous findings that demonstrate reducing negative effects (Jaya, Ascone L, & Lincoln, 2018) and improving emotional regulation abilities (Lincoln, Marin, & Jaya, 2017) can reduce psychotic symptoms. In this study, the initial difficulty in building and maintaining a rapport led us to focus on the triggers of the patient's psychotic symptoms and comorbidities, as opposed to solely addressing his schizoaffective disorder diagnosis. This indirect approach of focusing on clinical factors, rather than diagnosis, is in line with a recent large longitudinal study, demonstrating that diagnosis is not related to treatment outcome (van Os et al., 2021).

Interestingly, the rate of improvement in our case study is similar to previous CBTp studies conducted in other countries via face-to-face consultations. For instance, an average of 44.83% reduction in positive symptoms had previously been observed using the Positive and Negative Symptoms Scale in a CBTp randomised-controlled trial in Beijing, China. These results were observed after 15 sessions and in an 84-week follow-up (Li et al., 2015). Similarly, our patient has demonstrated a 53% reduction in the total PSYRATS score, from 53 to 25, over the course of 60 sessions (30 h of CBTp). These results lend support to a recent meta-analysis, demonstrating that teleconsultation is non-inferior to face-to-face consultations (Fernandez et al., 2021).

The feasibility and benefits of CBTp to address psychotic symptoms in this case study are, in part, attributable to the role of the patient's family. In this case, the patient's family persuaded him to seek and attend psychotherapy. The role of family and community in predicting psychotherapy treatment outcomes seems to be a recurring theme in studies from Asia. For instance, a qualitative study in Yogyakarta, Indonesia, involving interviews with mental health professionals and service users demonstrates that family plays a significant role in patients' choice to seek treatment (Putri et al., 2021). Results from more than two decades of ethnographic studies in Yogyakarta demonstrate that caregivers, particularly family members, tend to rely upon a variety of contradictory concepts to explain the aetiology of mental illnesses such as psychosis. For instance, they may seek to make sense of their experience using supernatural, psychological, and physiological explanations. This leads to overlapping care-seeking behaviours (Subandi, Prptomojati, Marchira, DelVecchio Good, & Good, 2021). Furthermore, a review on qualitative studies from LAMICs such as Turkey, India, China, Swaziland, Indonesia, Egypt, South Africa, and Vietnam demonstrates that family support is a significant predictor of the success of psychotherapy treatment (Gamielien, Galvaan, Myers, Syed, & Sorsdahl, 2021).

The findings from this study, however, should be understood in context. This study was conducted in Jakarta, the capital city of Indonesia, which has a comparably higher GDP than the rest of the nation (2021 GDP per capita USD 19,999 vs. 2021 GDP per capita USD 3,869). The patient came from a financially stable household, was monitored on monthly basis by a psychiatrist, and was supported by his family. There are possible limitations to CBTp implementation among citizens of LAMICs outside this context. A qualitative study of mental health professionals and service users in Yogyakarta, Indonesia, highlights significant barriers to psychological treatment in rural areas of this nation. Researchers cite the lack of governmental support, low mental health literacy, limited-

service accessibility, and stigmatisation within both the family and community as the most significant barriers to psychological treatment in rural Indonesian regions (Putri *et al.*, 2021). These factors may impact the generalisability of the present case study's findings to rural contexts.

To conclude, this case study demonstrates that CBTP is feasible and beneficial when delivered via teleconsultation in Indonesia, a LAMIC. An indirect approach to the management of positive psychotic symptoms via addressing emotional regulation abilities and comorbidities was also found to be instrumental. Furthermore, the support our patient received from his family to begin and continue psychotherapy played a crucial role in the treatment's feasibility and benefit.

**Supplementary material.** The supplementary material for this article can be found at <https://doi.org/10.1017/bec.2022.11>.

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