Title: Three Sessions of Intensive Short-Term Dynamic Psychotherapy (ISTDP) for Patients with Dissociative Seizures: A Pilot Study

Short Title: *ISTDP FOR DISSOCIATIVE SEIZURES*

Dr Javier Malda-Castillo[1], Ella Beton[1], Conor Coman[1], Bethany Howell[1], Dr Chrissie Burness[2], Dr Jayne Martlew[2], Dr Leo Russell[3], Dr Joel Town[4], Professor Allan Abbass[4], Dr Guillermo Perez-Algorta[5] & Dr Sophie Valavanis (ORCID ID: 0000-0001-7415-0050)[1]

[1]Mersey Care NHS Foundation Trust, Merseyside, England.

[2]The Walton Centre NHS Foundation Trust, Liverpool, England.

[3]Devon Partnership NHS Trust, Exeter, England.

[4]Dalhousie University, The Centre for Emotions and Health, Halifax, Canada.

[5]Lancaster University, Division of Health Research, Lancaster, England.

*Corresponding author information: Dr Javier Malda Castillo, 12 Haigh Road, Psychotherapy Services, Waterloo L22 3XP, Liverpool javier.maldacastillo@merseycare.nhs.uk

Abstract

Purpose: Intensive Short Term Psychodynamic Therapy (ISTDP) has demonstrated promising evidence for the treatment of several Functional Neurological Disorders (FND) including dissociative seizures. However, its implementation in secondary mental health and specialist services within the English National Health Service (NHS) is scarce. The aim of this pilot study was to explore the estimates of the therapeutic effects of a 3-session course of this treatment as well as establish safety and acceptability for a complex patient group. **Method:** The study followed a mixed methods case series design and recruited 18 patients from secondary adult mental health care and specialist neurology services. Participants completed self-report outcome measures at the start, at the end and 1-month following the completion of therapy. Three open ended questions examined their therapy experiences qualitatively and these were analysed through thematic analysis. **Results:** All participants who started the treatment (N=17) completed the intervention and attendance rates were very high (95%). No serious adverse effects were observed, and the CORE-OM and BSI showed improvements both at the end of the treatment and at follow-up. Healthcare utilisation was also reduced including acute medications, A&E attendances, and crisis line usage. **Conclusions:** The results provide preliminary support for the safe use of ISTDP in this complex group of participants but further evidence from controlled and randomized studies is warranted.

Keywords: ISTDP, dissociative seizures, psychodynamic, functional, neurological, NHS

Practitioner Points:

- Mental health care pathways for dissociative seizures are underdeveloped, often leading to delays in appropriate intervention.
- ISTDP is safe and acceptable for secondary adult mental health patients with dissociative seizures
- ISTDP can contribute to health outcome improvements along with reduced healthcare utilisation for patients with dissociative seizures.

Data availability statement:

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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Background

Dissociative seizures (DS) are one of the most common presenting symptoms of Functional Neurological Disorders (FND). FND presentations comprise of problems with the functioning of the nervous system which cannot be attributed to structural disease processes (Reuber et al., 2007). DS are relatively common, affecting between 12-20% of patients seen in epilepsy treatment centres and between 2 and 50 individuals of every 100,000 in the general population (Carson et al., 2000; Leppan, 2008; Martin et al., 2013). DS are commonly characterised by transient loss of consciousness, blackouts, behavioural alterations and/or convulsions that have no EEG correlates (Reuber et al., 2008; Reuber et al., 2016; Russell et al., 2016).

There is a high comorbidity of psychiatric diagnoses such as depression, anxiety, personality disorder or post-traumatic stress disorder (PTSD) amongst people with DS (Asadi-Pooya, et al., 2021; Bodde et al., 2009; D'Alessio et al., 2006). Nevertheless, the mental health care pathways for this population are underdeveloped and sometimes non-existent within the UK. As a result, there is often a delay to appropriate diagnosis and treatment (Goleva et al., 2020; Reuber et al., 2002) and patients may undergo unnecessary, expensive, and sometimes harmful interventions (Centre for Health Economics, 2012; Goldstein et al., 2020). Although health economic data for this population is not available in the UK, other countries such as Australia have reported yearly varying costs between A$4,339 and A$24,468 (e.g., Ahmedani et al., 2013; Seneviratne et al., 2019) and a study in the US evaluated the lifetime costs of DS for the economy at $110-920m (Martin et al., 1998).

Moreover, the health-related quality of life for patients with DS is lower than in patients with epilepsy and other neurological conditions and this has a strong correlation with

depression and somatic symptoms (Mitchell et al., 2012; Robson et al., 2018). This poses significant burdens for patients and families who see their life restricted and suffer chronic difficulties as their quality of life does not improve even after seizures remit (Karakis et al., 2014). In the UK, there has been an increased recognition that patients with DS receive insufficient treatment and support from mental health services. Psychological interventions are the recommended treatment for DS (Ben-Naim et al., 2020; Fritzsche et al., 2013). Despite this, the evidence for the efficacy of psychotherapy for patients with DS is still limited (Haritsa et al., 2021), with most evidence coming from small and uncontrolled studies (Baslet, 2012; Brooks et al., 2007). Although there is some controlled and adequately powered research regarding cognitive behavioural therapies (CBT) and DS, studies such as the CODES multi-centre RCT (Goldstein et al., 2020) did not yield significant differences between the treatment and the control group for their primary outcome of seizure reduction. Such results suggest the need for the development of further evidence-based psychological interventions for this population.

Whilst CBT interventions conceptualise DS within the assumption that negative schemas lead to distorted cognitions and somatic symptoms (seizures), psychodynamic treatments, such as Intensive Short Term Dynamic Psychotherapy (ISTDP), posit that implicit emotional processing as well as distorted bodily awareness are the main contributing factors for somatic symptoms. ISTDP understands DS as part of a patient's automatic, unconscious, and habitual affect avoidance and their associated physiological states generated in the body (Russell & Yates, 2017; Russell et al., 2016). Thus, it proposes that the treatment focus should be on enhancing awareness of bodily sensations and internal cues for emotional processing.

ISTDP Therapy

ISTDP is a psychodynamic treatment that focuses on facilitating emotional processing, understanding client's attachment, unconscious anxiety pathways as well as psychological defences (Abbass, Joffres & Ogrodniczuk, 2008; Davanloo, 1995). There is no pre-established treatment length for ISTDP as each course is tailored to the patient functioning, but on average treatments are less than 40 sessions across disorders (Abbass, Town & Driessen, 2012). Research has shown that the first sessions in therapy are crucial to therapeutic outcomes (Lutz, Stulz & Knock, 2009), and there is further evidence to suggest that 2–3-hour ISTDP extended assessment sessions are cost-effective (Abbass, Kisely, Rasic & Town, 2018; Russell et al., 2016). These extended 2–3-hour ISTDP courses have been shown to reduce self-reported rates of psychological distress in psychiatric samples within naturalistic settings (Abbass, Joffres & Ogrodniczuk, 2008), non-randomised clinical trials (Abbass, Joffres & Ogrodniczuk, 2009; Doorn, Macdonald, Stein, Cooper & Tucker, 2014) and mixed samples (Abbass, Town, Ogrodniczuk, Joffres & Lilliengren, 2017), with positive outcomes maintained at follow-up (Abbass et al., 2018).

Empirical Evidence of ISTDP

A meta-analysis carried out by Abbass et al. (2020;2021), revealed a respectable quantity of evidence for the use of short-term psychodynamic psychotherapy (STPP) as an effective treatment for people living with a wide variety of Functional Neurological Disorders (FND). The analysis reviewed 17 randomised controlled trial (RCT) studies and reported that STPP was significantly more effective in reducing somatic symptoms (Abbass et al, 2020) when compared to control groups.

Currently, there is limited evidence for the use of STPP for the specific FND presentation of DS (Haykal & Smith, 2015; Phakey et al., 2021). Previous literature shows eight studies (Barry et al., 2008; De Oliveira et al., 2016; Hubschmid et al., 2015; Metin et al., 2013; Major et al., 2010; Russell, Turner & Yates, 2017; Russell et al., 2016; Reuber et al., 2007) specifically reporting the use of STPP for DS. The two main interventions referenced; Brief Psychodynamic Interpersonal Therapy (PIT) and ISTDP, have demonstrated effectiveness in reducing seizure frequency (Barry et al., 2008) as well as significantly increasing patient quality of life and reducing healthcare usage (Mayor et al, 2010; Reuber et al., 2007). Nevertheless, much of the existing evidence demonstrating the efficacy of STPP for DS has come from non-controlled, underpowered studies. The specific use of ISTDP for DS has been shown in retrospective pilot studies with patients noting significant improvement across multiple outcome measures including quality of life, emotional wellbeing, somatic symptoms, and physical functioning (Abbass et al., 2021; Russell et al., 2016; Russell et al., 2017). Consequently, the existing evidence for STPP and specifically for ISTDP as treatment option for DS shows promise while further evidence from controlled and prospective studies is needed.

Current Study

A prior pilot study found clinically significant benefits from ISTDP for patients with functional neurological symptoms within an NHS community neuropsychology service (Russell, Turner & Yates, 2017). However, to our knowledge, no previous research has investigated the effects of ISTDP for DS specifically, within NHS settings. The primary aim of this study was to explore whether there were changes in psychological distress, psychiatric symptomatology as well as a decrease in healthcare resource usage after undertaking 3

sessions of ISTDP. The secondary aim of the study was to explore the acceptability and safety of ISTDP for DS patients.

Method

Pre-registration

The original protocol and proposal for this study was pre-registered on the Open Science Framework (**insert link**) in February 2021 to avoid selective reporting bias. Any changes from the protocol are noted in Appendix 1. The study received full HRA and HCRW approval (XXXX) by the NHS XXXX Committee.

Study design

A prospective pilot study with a mixed methods case series design using both quantitative and qualitative data.

Participants

A total of 18 participants provided informed consent to engage in this study by completing a digital consent form and returning it by email. Participants were recruited by clinicians in adult mental health secondary care community teams and from a specialist neurology service in England. The inclusion criteria were: participants were at least 18 years old; currently under the care of an adult secondary mental health team in the NHS or a specialist neurology service; had a confirmed diagnosis of dissociative seizures; were able to communicate in and understand English; were considered to have capacity to provide informed consent to engage in the study by their clinical team and; had access to telephone, email and the internet.

The exclusion criteria were having an intellectual disability or autism spectrum diagnosis; experiencing acute psychosis; engaging in another psychological therapy at the

time of the study; having a diagnosis of epilepsy which had not been stabilised by medication; being currently admitted to hospital or considered actively suicidal by the participant's clinical care team.

Procedure

Patients who were already under the care of participating services with a confirmed DS diagnosis were screened by clinicians for suitability for the study. Clinical diagnoses were based on historical assessments and for the purpose of this study, DS diagnosis was confirmed by 'clinical consensus' meaning that the clinical team had no doubt of the diagnosis and further investigation was not indicated. Following the screening, potential participants were contacted by their clinical team and informed of the study (see Figure 1) and those who consented were contacted by a member of the research team to discuss the study in detail, assess their eligibility and share the participant information sheet and consent forms.

Self-report questionnaires and a brief semi-structured interview (see appendix 4) about participants' DS experiences were completed during an initial meeting with a member of the research team. Following the initial research meeting, participants were offered three therapy appointments. The first two appointments were 90 minutes in duration and the final appointment was 60 minutes. Upon gaining written consent, therapy sessions were video recorded to ensure treatment fidelity.

After completing all therapy sessions, participants were asked to attend a post therapy research meeting to complete a final set of outcome measures. Three semi-structured questions (see Appendix 4) with participants who consented to being recorded (N=11) were analysed using thematic analysis. Finally, participants were asked to complete the self-report

questionnaires one month after the completion of the treatment. Questionnaires were either posted to their home address or emailed, depending on patient preference. A follow-up call was conducted if participants had not returned the questionnaires within 5 days.

[Insert Figure 1 here]

Due to the study taking place within the context of the COVID19 pandemic, all research and therapy appointments were offered either in-person or online, depending on the participant's preference. Half of the sample received treatment in-person and the other half online. Fourteen participants chose to engage in both research and therapy meetings in the same setting. Three preferred to attend research meetings online and therapy meetings in person. The remaining participant chose to attend the research meetings in person and the therapy meetings online (see Appendix 1).

ISTDP Therapy

A 3-session course of ISTDP was offered to participants, focusing on the emotional sources of current symptoms as well as their somatic concomitants (Abbass, Joffres, Ogrodniczuk 2008). The main elements included identification of attachment patterns, linking avoided unconscious emotions with anxiety pathways, exploring transference feelings, and increasing the patient's awareness of self-destructive psychological processes. The therapy followed established and previously published treatment manuals of ISTDP (Abbass, 2015; Ten Have-De Labije & Neborsky, 2012). The therapy was administered in a tertiary NHS psychotherapy service by a Clinical Psychologist (lead author), who has four years' accredited training in this modality and received monthly supervision by an ISTDP

accredited supervisor. Adherence to the model and therapist competence was ensured by monthly monitoring of video recorded sessions of the treatment (N=5).

Instruments

Primary Outcomes

The Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM). This is a 34 item self-report questionnaire that is designed to be administered pre and post therapy. Responses range from 0 to 4 and are averaged to produce a mean score to reflect the level of the respondent's psychological distress which ranges from 'healthy' to 'severe.' Evans et al. (2002) demonstrated strong internal reliability of the CORE-OM (α of between .75 and .95). Test-retest validity ranged from .64 to .91 in all domains.

Brief Symptom Inventory (BSI). This is a 53 item self-report and items are responded to using a 5-point Likert scale from 0 to 4. Internal consistency of the scale has been demonstrated to be acceptable (Derogatis & Spencer, 1982). Construct, convergent and discriminant validity were determined to be sufficient (Derogatis, 1993). The present study used the Global Severity Index (GSI) from this questionnaire to measure the number of symptoms and their intensity.

Healthcare Utilisation. Participants' usage of mental health resources such as A&E visits, duty and emergency phone line calls and acute medication prescriptions were included. These records were retrieved by the research assistants of the study. Acute medications were defined as psychiatric medications and painkillers that were used 'when required' (PRN) and thus were not part of a regular prescription schedule.

Secondary Outcomes

Acceptability and Safety. The acceptability of ISTDP for DS was based on levels of engagement in the intervention. The criterion for the treatment being considered acceptable was determined a priori, as noted in the pre-registration protocol, as 75% of the sample completing all three sessions of therapy offered.

Safety of the intervention was investigated using the Adverse Experiences in Psychotherapy questionnaire (AEP; Hutton, Byrne & Morrison, 2017: unpublished) which is a 27-item questionnaire. This assesses whether participants have experienced negative or painful events in the context of the therapy offered (e.g., "*Taking part has made me feel more anxious"*). Items rated above 3 met the threshold of being considered problematic. To further assess the safety of the project, the presence of serious adverse events during and soon after therapy (up to one month after completion of treatment) was monitored by the lead author. Serious adverse events were defined as suicide, suicide attempts, or having serious risk of symptomatic exacerbation as per the risk subscale of the CORE-OM.

Semi-Structured Interviews. To obtain personalised information of the sample's experiences of DS as well as their experience of ISTDP, a short semi-structured interview of three questions was held following completion of the treatment (see Appendix 4).

Data Analysis

Statistical Analysis

Data were analysed using SPSS statistical software (Version 22.0). Descriptive statistics were reported to summarise the sample, to analyse the acceptability and safety of the intervention and adherence rates. Following this, paired sample T-tests with bootstrap (n=10000) were undertaken to compare pre and post measures. Mann Whitney U tests were

undertaken for confirmatory analysis of the non-parametric data and effect sizes were assessed using Cohen's D.

Qualitative Analysis

Thematic analysis (Braun & Clarke, 2006) was used to analyse the qualitative data. The interview responses were transcribed verbatim, and each transcript was repeatedly read to increase familiarity with the data. To add to the validity of the themes, the initial coding of the qualitative analysis was completed separately by each of the three research assistants who were involved, and agreement was reached through consensus following review and discussion with another qualified clinical psychologist experienced in qualitative research.

Interesting words, sentences and phrases were highlighted and given initial codes. These codes were then organised and grouped together into provisional themes. Finally, these initial themes were organised and grouped together into higher-order themes and subthemes. Emerging themes were corroborated with codes and initial data to ensure that context and meaning was preserved, and no themes resulted from any single account. The qualitative analysis was completed without the input of the treating clinician, to reduce the potential effects of confirmation bias (Sim et al, 2012).

Results

Participant characteristics

Eighteen participants were included. Participants' ages ranged from 22 to 60 years old (M=37.7; SD=11.9). All participants described themselves as White British, 89% were female and 83% were unemployed (see Table 1). Most of the sample (83%) had at least two formal psychiatric diagnoses and 83% had a chronic medical condition. The number of years receiving support from adult secondary care mental health services ranged from 0 to 13 years (M= 3.1; SD= 3.7) and specialist neurological input ranged from 0 to 24 years (M=4.2; SD=

6.2). Most of the sample (83%) were receiving input from adult secondary mental health services.

One participant withdrew from the study prior to initiating the therapy intervention. All 17 remaining participants completed the intervention and the pre- and post-treatment outcome measures and 14 completes the questionnaires at one month follow-up.

[Insert Table 1 here]

Acceptability and adherence

The attendance rate was 95% (N=18) with one participant missing the 3 therapy sessions offered as they dropped out of the study before commencing treatment. Of the 17 participants who began the intervention, the completion rate was 100% for all the 52 sessions offered. The treatment setting allowed for rearrangements and only 16% of the offered treatment sessions were rearranged due to patients having to cancel the sessions for personal circumstances (i.e., unavailability, being unwell etc.). Although no formal adherence rating to the therapy was employed, video recording sessions of the therapy (N=5) were supervised by an accredited ISTDP trainer and supervisor.

Safety

No serious adverse events were identified or reported during or up to 1-month after the completion of the intervention such as hospitalisations, suicide attempts or suicidal behaviours. Table 1 shows no increase in mean risk scores on the CORE risk subscale, with scores in fact decreasing temporarily at the post-intervention time-point. One participant reported a moderate increase in non-suicidal self-harming behaviours during the intervention although this was concordant with their clinical presentation of longstanding self-injurious behaviours. Furthermore, the endorsement of self-reported adverse event experiences in the

AEP questionnaire were small. The mean scores for each item ranged from 1 to 2.9 thus falling below the pre-established cut-off score of 3, which indicates 'a little' distress in response to different areas of the therapy. For more specific information regarding AEP responses, including % of participants responding to items above cut-off score of 3, see appendix 3.

Quantitative Outcomes

The mean scores for baseline, post-treatment and one-month follow-up outcome measures are presented in Table 2. A significant score reduction in the CORE-OM Total was observed between baseline (*M*=20.39, *SD*=6.06) and post evaluation (*M*=16.67, *SD*=7.72) [*t(16)=2.61, p=.01;Z*= 29.00, *p*<.05] reflecting a moderate within group effect size (*Cohens' d* =.54). At the subscale level, significant reductions were observed in the CORE-Symptoms between baseline (*M*=24.73, *SD*=6.91) and post-treatment (*M*=21.02, *SD*=9.00) [*t(16)=2.04, p=.05; Z*=23.50, *p*<.05] and in the CORE-Life Functioning scales (Pre *M*=20.64, *SD*=6.72; Post: *M*=16.81, *SD*=8.69) [*t(16)=2.21, p=.04; Z*=31.00, *p*<.05] reflecting moderate effect sizes (*Cohen's d*=.05 and .04 respectively). The Brief Symptom Inventory also showed a significant decrease between pre (*M*=2.16, *SD*=.81) and post assessment (*M*=1.77, *SD*=.99) timepoints [*t(16)=2.61, p=.01; Z*=29.50, *p*<.05] reflecting a moderate effect size (*Cohen's d* =.63). Figure 2 illustrates descriptively how the reduction on mean scores for CORE-34 and BSI were sustained at follow-up.

[Insert Table 2 here]

[Insert Figure 2 here]

Healthcare Utilisation

Medical records from participants (N=17) were examined and their usage of healthcare resources was compared before and after the intervention (see figure 3). The data shows that healthcare resource usage decreased when comparing the 3 months before the treatment with the 3-month period after the completion of the treatment. The comparison of acute medication prescribing between pre (*M*=2.76, *SD*=3.33) and post-treatment 3 month intervals (*M*=1.06, *SD*=1.70) was statistically significant [*t(16)=2.33, p=.03) ((Z*= -2.17, *p*=0.03)] reflecting a moderate effect size (*Cohen's d =.56).* The usage of duty and emergency phone lines experienced a decrease when pre-treatment (*M*=1.47, *SD*=2.21,) and post-treatment (*M*=0.59, *SD*=1.94,) timepoints were compared reflecting a moderate effect size (*Cohen's d =.47)* although it did not yield statistical significance [*t(16)=1.94, p=.06)* (*Z*= -1.87, *p*=.06)]. Finally, Accident and Emergency hospital attendances also decreased from *M*=.35 (*SD*=.74, to *M*=.12 (*SD*=.31) showing a small effect size (*Cohen's d* =.26) and no statistical significance *[t(16)=1.07, p=.29)* (*Z*= -1.00, *p*=.31)].

[Insert Figure 3 here]

Qualitative

The five main themes that emerged from the data are detailed in Table 3. The first theme '*therapy as enlightening'* encapsulates the increased understanding that participants gained about themselves and their seizures through therapy: "There were things I didn't understand that I understand now" (9). The therapist supported participants to recognise significant personal factors that they had not been conscious of.

This theme contained three subthemes, the first of which; *'increased ability to recognise triggers and warning signs'* summarises how therapy increased participants' awareness of their triggers and warning signs, and their ability to recognise emotions and

how they manifested in the body: “Now I know the triggers… I… have a little conversation in my head where I say “What’s causing this now… am I stressed about something?” Am I stressed or… down about something?” (3). The *‘increased awareness of emotional avoidance and its impact’* sub-theme relates to the increased recognition that therapy gave participants, that they had been avoiding or suppressing their emotions, which was highlighted as a trigger for seizures. Participants noticed a decrease in their seizure frequency when they felt and responded to their emotions rather than suppressing and avoiding them. Therapy gave participants permission to feel and express their emotions instead of suppressing them: “I’ve cried for myself twice now since the last session. And that, it’s hard to say, doesn’t… feel self-indulgent. For once. It doesn’t feel like a pity party, it feels like an entitlement; a right” (18) and supported them to recognise that expressing emotions could reduce their power. Therapy helped participants recognise the impact of life experiences on their current difficulties, which was summarised in the ‘*increased awareness of the impact of life experiences*’ subtheme.

The second theme: ‘*fewer seizures and increased control over them’* relates to the participants’ experiences of therapy resulting in increased control over seizures and reduced seizure-frequency. This was partly due to being able to avoid or address triggers. However, there was a recognition that triggers are not always avoidable: “I’m trying to reduce things that would stress me out or would make me anxious. But then there’s some things where I can’t reduce it because it’s out of my own hands” (15). Despite this, an increased recognition of physiological changes prior to a seizure increased control over them. Participants learned skills and techniques from therapy that helped them to better manage emotional triggers for seizures: “Anxiety brings them on, but I’ve been taught now through the therapy how to

manage anxiety better" (9), but also to manage the physiological changes in their body that may previously have resulted in seizures. However, there was a recognition that this was a work in progress, and that skills need to continue to be practiced.

The impact of therapy on intra- and interpersonal relationships encapsulates the various positive changes that were reported by participants regarding changes in how they related to themselves since therapy, including increased self-awareness, self-connection and valuing themselves more: "I'm listening to myself a little bit more" (12). Therapy also increased self-compassion and reduced feelings of self-blame and guilt for difficult past events. There was also a change in participants' relationships with others as a result of therapy: "I think it's changed the relationships I have with people" (14).

Participants reported positive experiences of therapy. There was a recognition from some that more sessions would have been beneficial. This is described in the fourth theme; *therapy as challenging, but leaving a desire for more.* Therapy highlighted other issues that participants felt that they needed to work on: "It's kind of helped me realise, actually other bits that I need to do" (6), and although they experienced increased self-awareness and understanding of their emotions, bodily sensations, triggers and warning signs, some reported ongoing difficulties managing troubling or upsetting thoughts which felt outside of their control. One participant reported finding the short-term nature of the therapy to be particularly difficult. However, they valued what they had learned from therapy.

A new outlook relates to the new perspective that participants gained from therapy, not just about their seizures, but about life more generally. Participants reported increased hope about the future following therapy, and they were able to take pride and recognise their

achievements through therapy: “And when you can say you know “I’ve not had a seizure today” that’s a huge step in the right direction for me” (3)

[Insert Table 3 here]

Discussion

ISTDP is an evidence-based psychological intervention for a range of mental health and functional presentations (Abbass, Town, & Driessen, 2012; Russell et al., 2016; Town & Driessen, 2013). Evidence for the treatment of DS using ISTDP is in its infancy and studies evaluating this treatment in NHS settings are limited. This pilot study aimed to examine the effects of a 3-session course of ISTDP and to explore its acceptability and safety within the context of adult secondary mental health and speciality neurological care. The sample included in this study had a variety of long-standing mental health and physical health difficulties and could be classed as refractory. All participants had been under the care of specialist services for several years and had received several pharmacological and psychological treatments with limited benefit.

Previous evidence suggests that ISTDP can be particularly efficient and cost-effective for patients who have shown little or no response to other forms of treatment and who suffer from chronic somatic and mental health conditions (Town et al., 2020). This was consistent with the results of this pilot study as the primary pre-established hypothesis was met, with a significant decline of psychological distress and healthcare utilisation following the treatment. Additionally, these changes appeared to be maintained at 1-month follow-up. The results of this study are in keeping with similar naturalistic studies of ISTDP with FND populations such as those conducted by Russell et al. (2016) and Russell, Turner & Yates (2016). The treatment effects following only 3 sessions of ISTDP therapy compare favourably to a recent study of CBT for DS (Becky-Bikat et al., 2021) where patients

attending 7 or less sessions of CBT did not show any significant improvements in depression, anxiety, or quality of life.

Regarding the second hypothesis, attendance rates satisfied the pre-specified targets to assess acceptability. All the participants who started therapy completed it and the percentage of session attendance was very high, particularly when compared to non-attendance and treatment dropout rates in psychiatric services (Killaspy et al., 2000). Furthermore, attendance and dropout rates were more satisfactory when compared to other psychotherapy pilot studies of brief therapies conducted in NHS settings, such as the HOPE study which examined a 4-session intervention to reduce self-harm, with 49% attendance to full treatment (Taylor et al., 2021), compared to the 95% reported in the current study. Dropout rates in the current study were lower than those reported in CBT pilot studies for DS (Goldstein, Deale, Mitchell-O'Malley, Toone, & Mellers, 2004). A possible explanation for the high rates of adherence and low dropout rates demonstrated in this and previous studies of ISTDP with complex populations (Malda-Castillo et al., 2020) is the emotional focus of the treatment, with particular emphasis in attachment manoeuvres and how they can enhance or damage the therapeutic relationship.

The acceptance of the treatment was further confirmed as satisfactory by the themes which emerged from the qualitative interviews. These themes indicated that therapy helped participants to develop an increased understanding of themselves and their seizures, including a better understanding of their triggers, warning signs and emotions. It also led to an increased awareness of how emotions were often avoided or suppressed, and the role of this in their seizures. This is consistent with previous patient descriptions of the helpfulness of ISTDP for medically unexplained symptoms (Town et al, 2019). ISTDP gave participants permission to feel and express their emotions and helped them to make sense of their life experiences. Participants described gaining an increased control over their seizures following

ISTDP and fewer, less frequent seizures, in part because of an increased recognition and resultant ability to avoid or address triggers. Participants spoke about learning skills and techniques from ISTDP to help them to manage their emotions and bodily sensations, which previously may have led to a seizure. ISTDP was also described as having a positive impact on participants' relationships with themselves and others. Participants generally reported positive experiences of ISTDP therapy and there were reports of it providing a new perspective of their seizures and life more generally, with increased hope and pride. However, there was a recognition that therapy was challenging, particularly its short-term nature, some participants felt the need for further sessions, along with ongoing practice of skills learned in sessions.

Strengths and limitations

This pilot study adds to the evidence of Short-Term Psychodynamic Psychotherapy (STPP) for patients with DS by reporting outcomes of patients from a naturalistic NHS secondary care setting with complex and chronic difficulties. The current study included patients with moderate and severe psychiatric difficulties, as well as those diagnosed with well-managed epilepsy; groups who have not been included in several previous psychotherapy studies of dissociative seizures (Becky-Bikat et al., 2021; Carlson & Perry, 2016; Goldstein et al., 2004;2010;2020). Moreover, the lack of serious adverse events and the low scores in the AEP questionnaires supported the safety of the approach for this population.

The therapist providing the intervention did not take part in the data collection and/or analysis of the qualitative interviews which was completed by research assistants under supervision of another member of the research team, thus minimising experimenter bias.

Despite the positive findings, caution is warranted as this was a non-blind and non-randomised pilot study with no control group. Furthermore, the qualitative data only reflects the experiences of 11 out of the 18 participants, which also highlights the need for caution in

the interpretation of the qualitative results. The overall sample size (N=18), and the involvement of a single therapist, limit the generalisability of conclusions. Future research should aim to recruit larger samples from different NHS services and with treatment administered by different therapists. Additionally, whilst the treatment adherence was ensured through video-based supervision, a lack of a formal adherence scale is a limitation regarding treatment fidelity and future research should employ standardised treatment adherence inventories.

Conclusions

The study suggests that ISTDP can be used safely and with very respectable adherence rates within complex and refractory NHS patients. The study also provides substantial and encouraging support for progress to a full controlled study. The qualitative data reflects that the intervention was generally positively received by patients and that therapeutic gains were made in a short period of time. Conclusive evidence of the effectiveness of ISTDP for DS must await randomised and adequately powered studies with larger samples, comparison groups and longer follow-ups.

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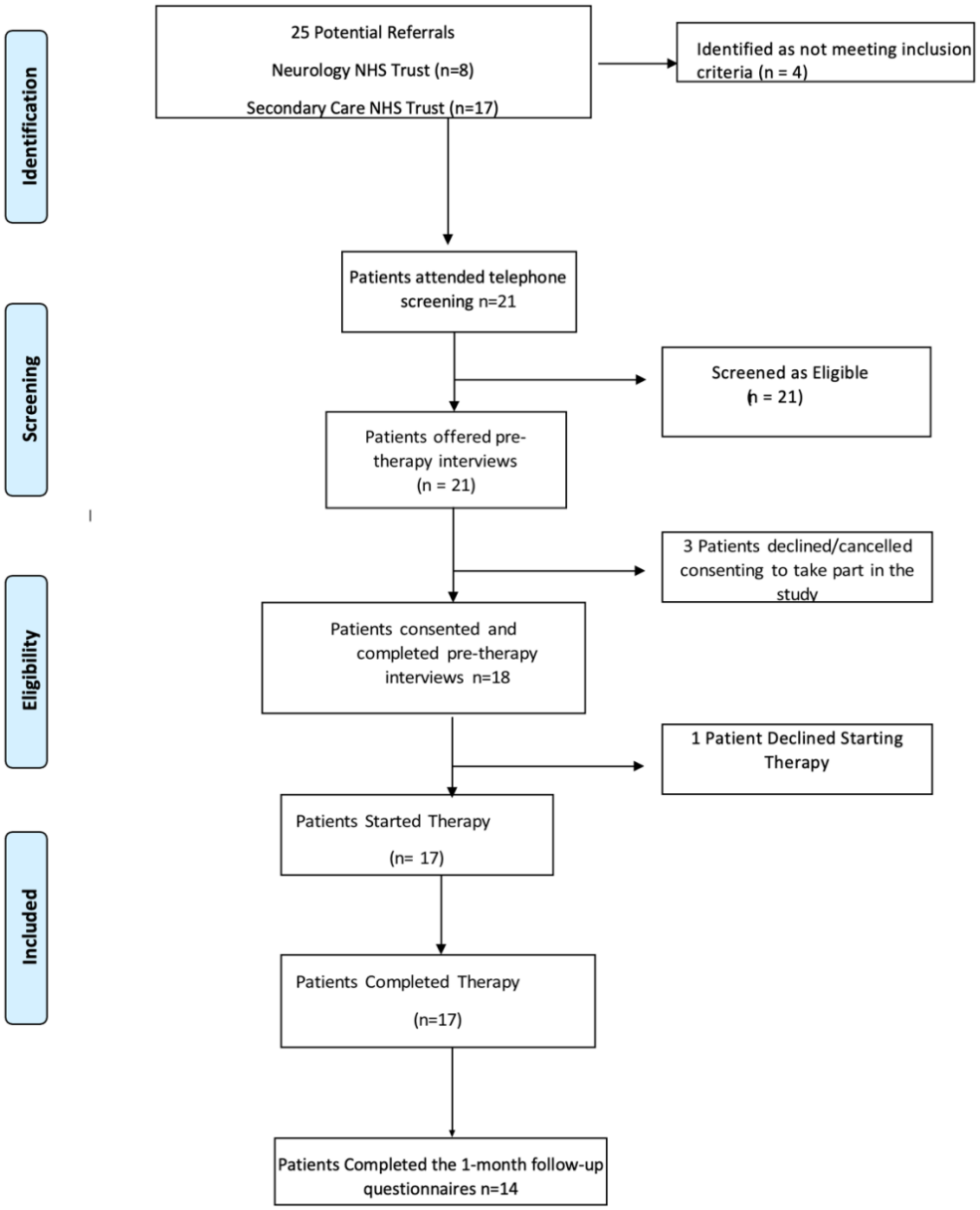

Figure 1. *Recruitment Process*

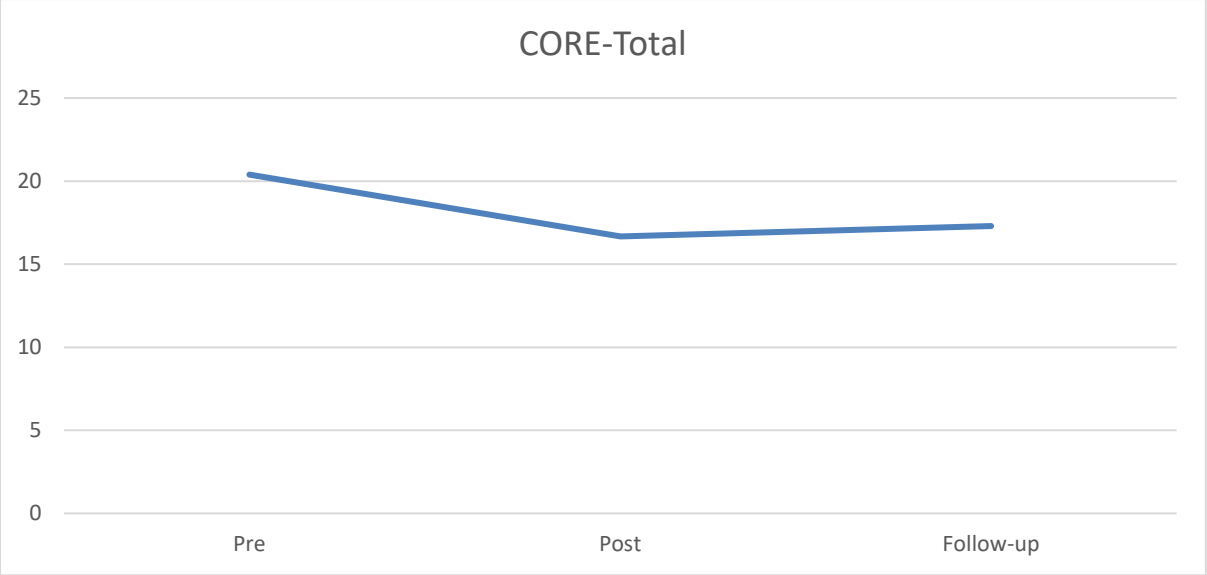

Figure 2a. *CORE-34 Mean Trends*

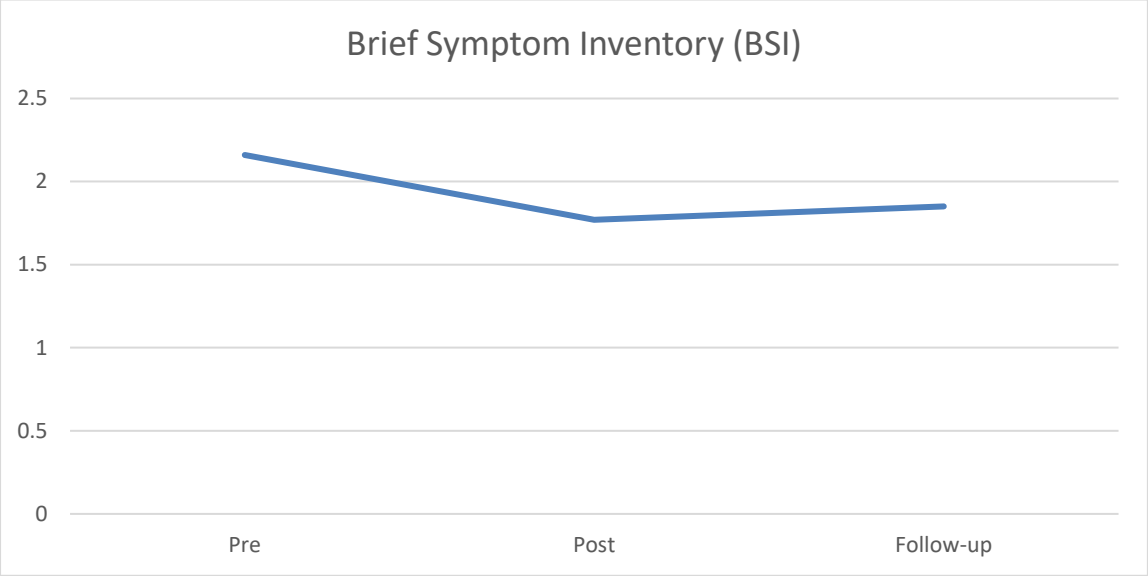

Figure 2b. *BSI Mean Trends*

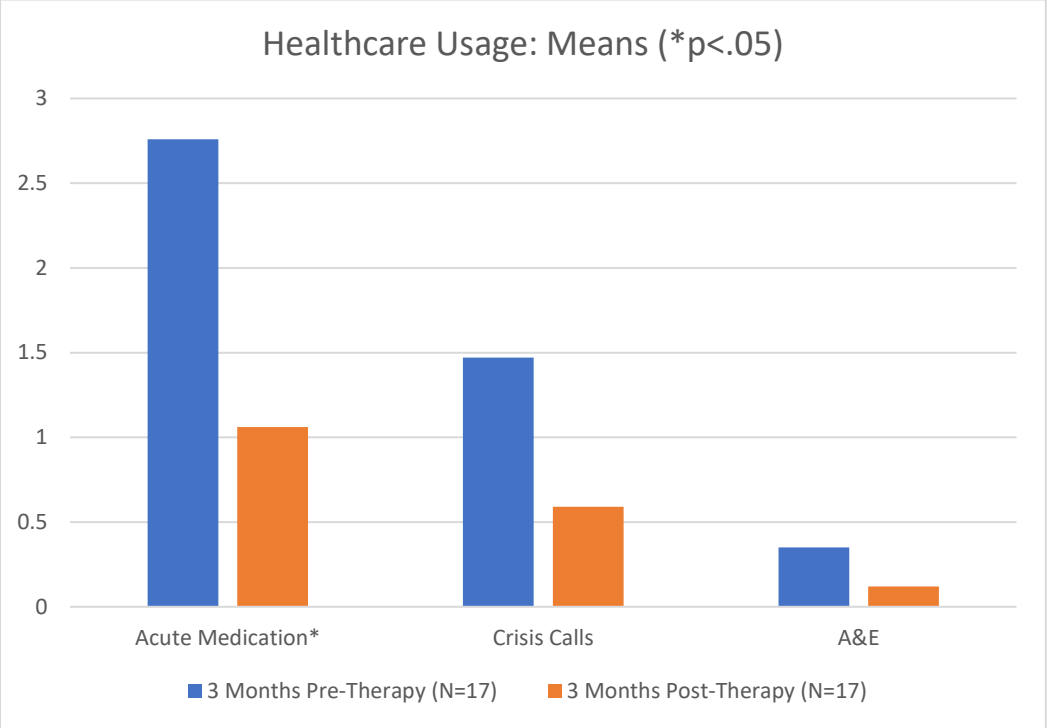

Figure 3. *Healthcare Usage (3 months intervals)*

Table 1. *Sociodemographic characteristics*

Characteristics		**Descriptive**
Age, *mean (SD)*		37.7 (11.9)
Gender, F*emale n (%)*		16 (89)
Ethnicity, W*hite British n (%)*		18 (100)
Marital Status, *n (%)*		
	Single	9 (50)
	Married/Cohabiting	5 (28)
	In Relationship	3 (17)
	Separated/Divorced	1 (5)
Education[†], *n (%)*		
	GCSES	7 (41)
	A Levels	1 (6)
	College	3 (18)
	University	4 (23)
	No Qualifications	2 (12)
Employment, *n (%), Unemployed n (%)*		15 (83)
On benefits, *Yes n (%)*		16 (89)
≥2MH Diagnosis, n (%)		15 (83)
Diagnosed with *EUPD*, n (%)		7 (38)
Chronic Health Condition, n (%)		15 (83)
Current Self-Harm, *Yes n (%)*		2 (11)
Past Self-Harm, *Yes n (%)*		13 (72)
Suicide Attempts, *Mean (SD)*		1.7 (1.7)
≥ 2Psychiatric Medication, n (%)		10 (55)
≥ 2Prior psychological treatments, n (%)		7 (38)
Years Neuro Treatment, *Mean (SD)*		4.2 (6.2)
Years MH Treatment, *Mean (SD)*		3.1 (3.7)
Treatment Setting, *Face to Face, n (%)*[‡]		9 (50)

[†]N=17, [‡]50% of the sample treated online and 50% in person

Table 2. *Self-Report Outcome Measures*

Questionnaires	**Pre-Treatment (N=18)**	**Post-Treatment (N=17)**	**1-Month Follow-up**
CORE Wellbeing, *Mean (SD)*	25.94 (8.72)	21.18 (10.39)	22.89 (9.62)[†]
CORE Symptoms, *Mean (SD)*	24.73 (6.91)	21.02 (9.00)*	20.77 (9.16) [†]
CORE Life Functioning, *Mean (SD)*	20.64 (6.72)	16.81 (8.69)*	17.51 (9.11) [†]
CORE Risk, *Mean (SD)*	8.60 (7.72)	4.51 (5.53)	6.28 (6.26) [†]
CORE Total, *Mean (SD)*	20.39 (6.06)	16.67 (7.72)*	17.30 (8.10) [†]
BSI, Mean (*SD*)	2.16 (.81)	1.77 (.99)*	1.85 (1.02) [‡]

[†]N=13, [‡]N=14, *p<0.05, BSI= Brief Symptom Inventory

Table 3. *Themes Emerging from Question Regarding Therapy Experience*

Theme	Subtheme	Illustrative quotes
Therapy as Enlightening		"It's given me the realisation of how deeply connected my dissociations and my feelings are… and I've been given… the explanation from the doctor of what he could pick up and what I couldn't really see in myself" (16)
		"(laughs) Its sort of like on television, like X Factor, when you hear something is "life changing". Yeah, but no I think it has, even if its just like small improvements throughout the day" (3).
	Increased Ability to Recognise Triggers and Warning Signs	"I know, exactly how the body works when the anxiety starts, through therapy. So that was really useful. I have learnt a lot of positive stuff" (9).
		[I] notice what my body does when my anxiety is there, ill notice when my vison goes blurry, and start to lose focus and my brain gets foggy, but [therapist]'s said that I'm also at dissociation level then, that's my level of anxiety before I notice I have anxiety. So, he's saying I need to start noticing when my legs start to go, or I start to mess with my hands or tension in my shoulder or neck. So, to pick up on those things like, dry mouth, racing heart, whatever (16).
	Increased Awareness of Emotional Avoidance and its Impact	So what I've learned is that for me to sort of deal with my seizures and stuff like that, I have to actually feel my emotions rather than shut them all away. Because that's what's bringing them on… I thought it was literally because of feeling emotions in my seizures and it turns out it's the opposite; its because I'm not showing my emotions, that's actually bringing them on (6)
		He wanted me to be more self aware which is difficult because erm, because it means feelings are involved and I don't like to feel feelings (laughs). Erm, that's the other thing. Some of the feelings are quite uncomfortable so I would rather be dissociated that feel them (16).
		"He said I'm letting them get to the point where they're coming out like a volcano…I let them out and then they're just feelings and I can have respect for them. If I want to cry then I cry, instead of pushing it all down when its going to come out anyway, then its less explosive" (16).

Table 3 continued. *Themes Emerging from Question Regarding Therapy Experience*

Theme	Subtheme	Illustrative quotes
	Increased Awareness of the Impact of Life Experiences	It's completely changed my view… regarding my seizures; what's causing them… There was quite a revelation… during the second session that I didn't even realise was going on in my life… My Mum always told me not to show my emotions; stuff like that…, he brought back to my attention the way that I treat myself, like what my Mum has programmed in my brain, how to be (6).
Fewer Seizures and Increased Control over them		"I don't think had any control, or very little, previous to coming here. But I feel like I have better understanding of how they come about. Erm, what point I'm at, what point I come to and how they start" (16). "I have been able to control it in the past but probably not as well. I think it was better. I recognised it was coming and it was better than it has been before" (12). "They've told me about getting that down; squeezing my hands together, pushing them to get the blood flow. Pushing up against walls to get the feelings back in my legs and things like that. So yeah, that seems to be working at the minute" (6). I think I've got the knowledge to do that… its just picking it up at the right time and not ignoring my anxiety 'til it gets ridiculous… Most of the time I've tipped over the edge before I know it's happening. But I think it will take a lot of practice, but I have managed to stop myself dissociating three times... I've got the tools there to help, just need to better to use them (16).
The Impact of Therapy on Intra- and Interpersonal Relationships		It's changed quite a lot because, obviously all these years I've been blaming myself, from when I was like 7 years old right up until my last relationship. The things I've done, feeling like hopeless, it was my fault and blaming myself like, I could have done this or that. But… the way the consultant has put it across has made me think, at the time I couldn't have done anything different. So, it has brought a lot of light to me regarding the way forward (17).

Table 3 continued. *Themes Emerging from Question Regarding Therapy Experience*

Theme	Subtheme	Illustrative quotes
		"It's changed my outlook on my relationship with my mother… to the relationship and the power she has over me, and to wrestle some of that away already, from her and my father" (18).
Therapy as Challenging, but Leaving a Desire for More		Where it's only been like three sessions, it's just barely scraping the surface. I've got a lot, an abyss of stuff, just collected through the years of different things and that obviously has taught me a little bit, but I've got a lot to learn and I could get a lot further, if there was more. (16)
		"It knocked me for six, actually, for a few days after each session and I just didn't expect that… the three sessions were just far too short" (9).
		"The sessions only ended yesterday, and I don't feel too good. But I know, looking at the bigger picture, its, I do value what I've had, and I think it will come good in the long run… I would do it again, but if it was longer sessions" (9).
A New Outlook		"[ISTDP has changed] my outlook on life, my perspective on the seizure stigma, my attitude. I try to think of the positives and the negative now" (3).
		"I'm really looking forward to see if I can fight off the blackouts through the exercises" (9).
		Three times, as I say, I've stopped it, but I'm made up as I've not been able to stop it before and that's a big achievement and a sign of hope that I might be able to get to a point where I'm not spending a lot of time not remembering or its fuzzy (15).