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Adapting Psychological Therapies for Autism – Therapist Experience, Skills and Confidence

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Abstract

Background—Psychological interventions informed by cognitive behavioural theory have proven efficacy in treating mild-moderate anxiety and depression. They have been successfully adapted for autistic children and adults who experience disproportionately high rates of co-occurring emotional problems. There has been little research into the perspectives and experience of psychological therapists adapting cognitive behavioural therapy (CBT) as part of routine clinical practice. We surveyed therapist skills, experience and confidence in working psychologically with autistic people, in order to highlight gaps and needs, as well as strengths in terms of therapist skills when working with this group.

Method—Fifty therapists attending a training event completed a survey about their experience of adapting CBT for autistic clients, alongside a measure of therapist confidence.

Results—Almost all therapists reported making adaptations to CBT practice when working with autistic clients. Key challenges identified were rigidity in thinking and pacing sessions appropriately. Therapists were relatively confident about core engagement and assessment skills but reported less confidence in using their knowledge to help this group. Therapist confidence was not associated with years of practice or number of adaptations made, but was positively associated with level of therapy training received.

Conclusions—This study highlights a need for training and ongoing supervision to increase therapist confidence in and ability to make appropriate adaptations to CBT treatment protocols for autistic people.

Introduction

Autism spectrum disorder (ASD) is characterised by qualitative impairments in social communication and a restricted, repetitive pattern of behaviour, interests or activities (5th ed.; *DSM-5;* American Psychiatric Association, 2013). There is a high prevalence of co-occurring mental health problems, particularly emotional disorders, in autistic[1] people with

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Conflict of interest
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[1]In the current study, individuals with autism are referred to as “autistic people”. This was the term endorsed by 61% of 502 autistic people in a recent study, compared to 18% who would use “person with autism” (Kenny et al., 2016).

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studies reporting 53% experiencing a mood disorder and > 50% an anxiety disorder at some point in their lives (Hofvander et al., 2009). The clinical features and cognitive differences characteristic of ASD mean autistic people require adaptations to standard evidence-based psychological treatments to adequately meet their needs (NICE, 2012). Such adaptations include an increased use of written and visual information, emphasising behaviour change over cognitive approaches, having well explained guidance and rules in therapy, involving a friend, family member or carer, having breaks, incorporating special interests and avoiding ambiguous use of language (NICE, 2012; Anderson and Morris, 2006). Moree & Davis (2010) report that another common adaptation is to target autism related deficits, such as in social skills or adaptive behaviours, to ensure the success of the mental health intervention.

There is evidence that when adapted, evidence based psychological interventions can be effective in the treatment of a range of common mental health problems in autistic people. Much of the clinical research has been on interventions within a cognitive behavioural framework with a focus on anxiety problems (e.g. Wood, et al, 2009; Russell et al., 2013). Systematic reviews highlight the clinical effectiveness of adapted cognitive behavioural therapy (CBT) for common mental health problems in autistic adults (Spain et al., 2015) and anxiety conditions in autistic children (Sukhodolsky et al., 2013). Further evidence suggests that such interventions are cost effective (Steensel, Dirksen & Bogels, 2014). Dissemination of the adaptations found helpful in clinical trials is an important step in increasing access to psychological therapies for this group. Walters, Loades and Russell (2016) conducted a systematic review of modifications to CBT for autistic young people in studies where the CBT intervention was found to be effective. They found that such studies tended to use more modifications than those recommended by NICE, including use of emotion recognition training, as well as disorder-specific modifications i.e. tailoring interventions to the specific psychological problem being treated.

Other clinical groups require adaptations to standard psychological therapy and this includes people with intellectual disability. Psychological therapies can be effective for people with intellectual disabilities if adapted to meet their needs. Although research for this is sparse compared to other groups, the evidence base for cognitive behavioural approaches is strongest in treatments for anger (see Willner, 2007, for a review). There is emerging evidence for the efficacy of CBT for depression (McCabe, McGillivray and Newton, 2006). Lindsay, Jahoda, Willner and Taylor (2013) outline the adaptations considered necessary to increase the efficacy of psychological therapy for individuals with intellectual disability, and these include using simplified language supported by visual materials, educational elements regarding labelling emotions and actions, repetition of key learning points, and involving carers. Although people with intellectual disability can access specialist teams for mental health support, those with less significant levels of disability can be provided care by mainstream services. The Therapist Confidence Scale for Intellectual Disabilities (TCS-ID, Dagnan et al., 2015) was developed to assess how confident psychological therapists feel in adapting their approach to meet the needs of clients with intellectual disability. The authors highlighted that therapist confidence may be a significant barrier to individuals with intellectual disability having as equal access to psychological therapies as typically developing people. Demonstrating improved therapist confidence following training is an important tool in improving access to evidence based treatments for specialist client groups.

This may well be the case for therapist confidence in working with autistic people as well as those with an intellectual disability.

Accessing evidence based psychological treatments can be a challenge for autistic people compared to the general population. Psychological or talking therapy is an inherently social process, daunting for most individuals embarking upon therapy, but particularly challenging to those with social communication difficulties. Attending a therapy session involves meeting a new person, speaking with them about personal information, and building up a rapport over time, all processes which can be challenging for the autistic individual. The widespread use of group therapy (Oei & Brown, 2006) or telephone appointments (Hilty et al., 2013) may present further social communication challenges for autistic people. Social interactions over the phone, with no visual cues, are likely to be a challenge for autistic individuals. Equally, group interventions with multiple attendees may be overwhelming to an autistic individual who struggles to understand the social world. Furthermore, the well-documented executive functioning difficulties in ASD (e.g. Hill, 2004) may mean that planning and attending appointments, and carrying out scheduled homework activities is more difficult for this group. Finally, high levels of alexithymia are found autistic people (Hill, Berthoz & Frith, 2004), and this difficulty with noticing and labelling emotions will impact on their ability to benefit from therapy. If a psychological therapy does not include training in identifying, labelling and scaling the intensity of emotions, this could result in poor treatment outcomes.

In order to improve access to treatment and outcomes, therapists must be aware of and confident in adapting their practice in line with the needs of autistic people. An understanding of the current knowledge, experience and confidence in working with autistic people on the part of psychological therapists is an essential starting point in the journey towards ensuring mental health services are autism aware and competent. This will allow gaps in clinician knowledge and confidence to be identified and improved upon in future service development and when designing training programmes for psychological therapists. Some studies outside of the UK have investigated clinician confidence in working with autistic people. Brookman-Frazee, Drahota, Stadnick & Palinkas (2012) investigated therapist perspectives on working with autistic children in the USA. They found that therapists frequently worked with autistic children, but felt that they did not have enough training to be well-equipped to work with this group and therefore found the work challenging and frustrating. Drahota, Stadnick & Brookman-Frazee (2012) then piloted a training package for psychological therapists working with autistic children, and therapists felt this training improved their clinical skills and outcomes for the child. These studies demonstrate that the identification of training needs for therapists working with autistic people, followed by effective training packages, can be an effective way of ensuring autistic people receive the adapted treatment that they need to overcome mental health difficulties.

This study aimed to survey a sample of UK based psychological therapists, to investigate their current knowledge and past experience of working within a cognitive behavioural framework with autistic people, as well as their confidence in working psychologically with this group. We aimed to identify gaps as well as strengths in skills, knowledge and

confidence, to inform future training packages to therapists and provide data on current practice in the UK.

Method

Participants

Psychological therapists attending a 1 day training workshop focused on adapting CBT practice for autistic people were invited to participate (n=54). This event was targeted at psychological therapists who were working towards accreditation with the British Association for Behavioural & Cognitive Psychotherapists (BABCP), who worked in both primary (Improving Access to Psychological Therapies, IAPT) and secondary care mental health services in the UK. The event was widely advertised in relevant national publications. IAPT services were introduced in 2007 to increase the provision of evidence based psychological therapies to people with common mental health problems in the UK. IAPT services are typically provided at primary care level and clinicians are trained to deliver 'low' or 'high' intensity interventions, the latter distinguished by therapist training in providing individual formulation- driven CBT interventions. For the present study, the training was a 1 day event designed to supplement practitioners' core CBT training. The training event involved an introduction to autism, the evidence based adaptations to CBT approaches for autistic children and adults, in line with NICE recommendations, and classroom skills practice in several of the key adaptations using role play and vignettes. Fifty four therapists opted to attend the workshop, and 50 participated in the study (92% response rate). Participants were provided with an information sheet about the study and consent form on attending the training event. They were asked to complete the study measures at the start of the training workshop, prior to receiving any training materials.

Ethical approval for this study was granted by the University Of Bath Department Of Psychology (Ref 16-150).

Measures

Participants were asked to complete a short survey prior to the training day. The survey was developed for this study, which sought information about their core training, current role, past experience of working with autistic children and adults, perceived barriers to working therapeutically with autistic people (open-ended question with free text box) and knowledge/use of adaptations to CBT as outlined in the NICE guidance (fixed choice options).

Participants were also asked to complete a measure of their confidence in working with autistic people across a number of therapist dimensions. The Therapist Confidence Scale for Intellectual Disabilities (TCS-ID, Dagnan, Masson et al., 2015) enquires about the key stages in the development of a therapeutic relationship, assessment, intervention and therapy ending, requiring respondents to rate their confidence at each stage across 13 items on a five point scale anchored as 'not confident', 'slightly confident', 'moderately confident', 'confident' and 'highly confident'. Dagnan et al (2015) found that the TCS appeared to represent a single factor of 'therapist confidence', and scored from 1-5. They also concluded

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from their investigation of the psychometric properties that the scale had good test-retest reliability and a degree of discriminative validity. The scale was adapted for the purposes of the present study by substituting the word ‘Autism’ for ‘Intellectual Disability’ in the relevant items.

Data Analysis

Frequencies, means and standard deviations were calculated for the quantitative variables. A one-way ANOVA and Pearson’s correlations were conducted to investigate the relationship between therapist differences, confidence and adaptations made for autistic people in therapy.

For the answers given in response to the open ended question about perceived barriers to working therapeutically with autistic people, the data was analysed using quantitative content analysis (Mayring, 2015). Independently 2 of the authors (ML and AR) read through all the responses and developed coding templates. A combined coding template was then agreed, with KC arbitrating where necessary to develop consensus. Using this template, ML and AR each independently counted the frequency of quotes related to each category, and selected example illustrative quotes. These were combined at a further meeting, with discrepancies being discussed and consensus reached.

Results

Therapist demographics

The mean number of years working as a psychological therapist was 6.67 (SD=3.99), and mean length of time in current post was 5.84 years (SD=3.38). The majority of respondents had core training in nursing (46%), other core training (30%), clinical psychology (18%), occupational therapy (2%) and social work (2%). 2% did not complete this section. Those in the ‘other’ group had a broad range of backgrounds, including drama therapy, applied behaviour analysis, no core training, counselling psychology, and psychodynamic psychotherapy. In terms of participants’ highest level of therapy training, the majority had a diploma (60%), followed by a doctorate (22%), MSc (10%), other (6%), and undergraduate degree (2%). All participants were working towards accreditation with the main professional body for CBT practitioners, the British Association of Behavioural and Cognitive Psychotherapy (BABCP), and so were receiving specialist teaching and supervision in conducting CBT for a range of client groups. BABCP accreditation requires direct assessments of therapist competence in delivering CBT, but it is not known what proportion of the participants had been directly assessed at the time of participation. Individuals with diplomas, MSc and doctorates undertake a minimum of 12 months of training with specialist teaching and supervised clinical practice. While the diplomas and MSc qualifications were likely to be specialist CBT training, Doctorates in Clinical and Counselling psychology tend to include teaching in a range of psychological approaches, usually including CBT.

The majority of participants worked in Increasing Access to Psychological Therapies (IAPT) step 3 services (34%) and secondary care mental health services (36%), while others worked in other services (12%), IAPT step 2 (6%), other IAPT services (6%), and IAPT step 1 (4%).

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The most common primary client group was adults with mental health problems (86%), followed by autistic adults (30%), older adults (24%), children (20%), adults with physical health problems (16%), and adults with learning disabilities (12%). Almost all participants used cognitive behavioural approaches as their primary approach (96%), with others using an eclectic approach (4%). Participants working in IAPT and secondary care mental health are likely to have CBT specific supervision, and be competent in applying CBT approaches to a range of clients and conditions.

Training and experience with autistic clients

The majority of participants (64%) had not received specific knowledge and/or skills sessions focusing on autistic clients in their core training, while 20% received both knowledge and skills training, and 16% received knowledge only. The majority of respondents (90%) did have experience of autism and had previously worked with someone with a diagnosis of autism, while the rest (10%) had not worked with an autistic client. Around half of the respondents (48%) were currently working with an autistic client, with the remainder not currently working with anyone with an ASD diagnosis (52%). The mean number of current clients with an ASD diagnosis was 0.93 (SD=1.35). See table 1 for a summary of presenting problems in both current and previous autistic clients.

Interest in interventions for mental health in autism

Participants were asked to rate their interest in working with autistic clients, with 0 being ‘not at all’ and 10 ‘extremely’ interested. The mean score of respondents was 6.85 (SD=1.89). Participants were asked to rate therapeutic gains for autistic patients in comparison to other clients, and 54% of respondents felt they were less favourable, with 6% rating gains as ‘very much worse’, 20% rating them as ‘the same’, and 6% as ‘better’. No respondents felt autistic patients had a ‘very much better outcome’ than other client groups they worked with.

Approaches used with autistic clients

The majority of respondents favoured a cognitive behavioural approach with autistic clients, giving it an average rating out of 10 of 7.17 for helpfulness, and 74% having ever used this approach. Systemic approaches were given a rating of 6.75 for helpfulness, and 16% had used this approach. Eclectic approaches were used by 14% of respondents and were given a 6.29 rating for helpfulness. Psychodynamic approaches were given a 3.1 rating for helpfulness, and 4% of respondents had ever used this approach.

Adaptations to therapy for autism

Participants were asked to endorse from a list which adaptations they had made to therapy for autistic clients in the past (see table 2). The most commonly used adaptations were a structured and concrete approach, behavioural strategies, use of plain English, discussing hobbies, psychoeducation about emotions and written and visual information. Less used strategies were cognitive strategies, involving a family member, avoidance of metaphors, and shorter or longer sessions.

Therapist Confidence Scale (TCS) – adapted for Autism

The TCS asked about confidence in working with autistic people. The mean score across all items was 2.96 (SD=.78), and a score of 3 was 'moderately confident'. The scale had high internal consistency with a cronbach's alpha of 0.92. See table 3 for scores across each item.

A one-way ANOVA was conducted to investigate the effect of service setting (child/adult/both) on number of adaptations made for autistic people in therapy. There was no effect of service setting ($F(2,45)=2.27$, $p=.12$) on number of adaptations made.

A Pearson's correlation was conducted to investigate the relationship between therapist experience in years, level of therapy training, confidence and number of adaptations made. There was no significant relationship between years of experience and confidence ($r=.140$, $n=45$, $p=.36$), nor experience and number of adaptations ($r=.205$, $n=45$, $p=.18$), nor confidence and number of adaptations ($r=.265$, $n=46$, $p=.075$), nor level of therapy training and number of adaptations ($r=.117$, $n=48$, $p=.43$).There was, however a significant positive relationship between level of therapy training and confidence ($r=.311$, $n=48$, $p=.03$).

Fisher's z-tests were conducted to assess whether any of these correlations were significantly different to one another, but there were no significant differences at 0.95 confidence using a two-tailed test. The correlation for years of experience and confidence was not significantly different to the correlations for experience and adaptations ($z=.31$, $p=.76$); confidence and number of adaptations ($z=.6$, $p=.55$); level of therapy training and number of adaptations ($z=-.11$, $p=.46$); nor level of therapy training and confidence ($z=.84$, $p=.40$). The correlation coefficient for experience and adaptations was not significantly different to the correlations for; confidence and number of adaptations ($z=.29$, $p=.77$); level of therapy training and number of adaptations ($z=-.42$, $p=.68$); nor level of therapy training and confidence ($z=-.53$, $p=.6$). There were no significant differences between the correlation for confidence and number of adaptations and level of therapy training and number of adaptations ($z=.72$, $p=.47$), nor level of therapy training and confidence ($z=-.24$, $p=.81$). Finally, there was no significant difference between the correlations for level of therapy training and number of adaptations, and level of therapy training and confidence ($z=-.97$, $p=.33$).

Content Analysis

Responses to the open text question '*Have you encountered any particular issues or challenges in working as a psychological therapist with people with Autism Spectrum Disorders?'* were subject to content analysis, with responses coded into categories and frequency counts generated for each category. Eleven categories were coded, see Table 4 for frequency counts and sample quotes. The most frequently reported barrier or issue was rigidity or Black and White thinking with 20 (40%) of therapists noting this. Pacing the therapeutic work was also noted by many to be an issue. Less frequently mentioned categories were completion of homework and sensory issues.

Discussion

This study aimed to investigate psychological therapists' perspective on working with autistic people within a CBT framework. The therapists surveyed had on average more than 5 years of experience of therapeutic work and almost all had some direct experience of working with autistic people. All therapists reported making some adaptations to their practice for this client group. Level of therapist confidence met the 'moderately confident' threshold on just 3 items of the Therapist Confidence Scale; being empathetic, developing a therapeutic relationship and gathering information from an ASD client to understand the difficulties. Although it is heartening to see that relatively experienced therapists do have confidence in these core therapeutic skills with autistic people, they reported less confidence in other competencies such as using their knowledge to help this group. However compared to therapist confidence in working with people with intellectual disabilities (Dagnan et al., 2014), therapists working with autistic clients appeared to be relatively confident. In the current study the range of average confidence scores by item was 2.31-3.98 out of 5, and in Dagnan et al's 2014 study the average range was 1.22-2.98, suggesting that therapists are more confident in working with autistic clients than those with intellectual disabilities. While the participants in Dagnan et al's study were also a convenience sample of UK therapists in NHS training workshops, the sample size was larger, and there was a higher diversity of professional backgrounds, and so this comparison is tentative. The current study did not differentiate between autism with and without intellectual disability, so it is not known whether respondents considered both groups in their responses. It is feasible that experience and skills therapy with individuals with intellectual disability would overlap in skills in working with autistic individuals, however we did not ask therapists about their experience in this area, and so cannot draw inferences regarding this. Therapist confidence was not associated with years of practice or number of adaptations made or experience of working with younger people, all factors we considered might be important. There was also no association between years of experience and number of adaptations made. However there was an association between therapist confidence and years of experience, suggesting that a higher level of training as a psychological therapist increases confidence, although this group were not implementing more adaptations than therapists with less training.

When presented with a list of the NICE recommended adaptations to CBT, the adaptations most frequently endorsed were behavioural strategies to introduce change, a more structured and concrete approach to therapeutic work, including psychoeducation about emotions, using plain English and using more visual and written materials. These adaptations are in line with the adaptations taught in the workshop participants attended, as the workshop focused on NICE recommended adaptations to psychological therapy. However measures were completed prior to attending the training, and so responses were not influenced by the content of the training. Making these adaptations is important to meet the needs of autistic clients within therapy, as previous studies have shown that CBT can be effective for autistic people, when adapted appropriately (e.g. Spain et al., 2015; Sukhodolsky et al., 2013). Therefore it is encouraging that therapists were showing an awareness of NICE recommended adaptations and implementing them for this client group; it suggests that

therapists with an interest in autism are making appropriate changes to meet the needs of autistic people.

The most frequently reported barrier to therapeutic work was rigidity of thinking or Black and White thinking. Rigid thinking patterns are listed amongst the core characteristics of Autism Spectrum Disorder in the DSM-5 (APA, 2013). Experimental and clinical neuropsychological studies of cognitive flexibility in autism show mixed findings, with task performance on tests of cognitive flexibility not necessarily related directly to behavioural inflexibility (Geurts et al., 2009). It is possible that CBT therapists who persisted in trying to use cognitive change techniques found that the cognitive style of autistic people was not always amenable to this approach. Furthermore, some CBT protocols have a cognitive emphasis with cognitive processes such as attention, thoughts, and beliefs very much at the heart of the formulation (e.g. Clark and Wells, 1995). It may become frustrating for both the therapist and the client if cognitive change techniques are inaccessible and persistence may contribute to a less favourable therapeutic outcome. Pacing of therapy, and completing homework, were also reported by a number of therapists as presenting challenges. Given the executive functioning difficulties found in autism (Hill, 2004), which includes skills in planning, mental flexibility and inhibition, and the complex cognitive processes undertaken in therapy, autistic people may require different pacing to fully benefit from therapy sessions, or need additional structure and reminders in order to complete homework tasks. There is likely to be an interface between therapist factors, client need and organisational/ service structures in respect of adapting pacing to meet the needs of autistic clients, as IAPT and secondary mental health services tend to have limits on number of sessions provided to each client, and so it may become challenging to meet the needs of an autistic person in 6-12 sessions, the number of sessions provided in IAPT. Furthermore, therapists reported that autistic clients had difficulties generalising skills learned in therapy to broader contexts, which again fits with the reduced cognitive and behavioural flexibility found in autistic people.

Another barrier reported was communication issues, as well as the need to use written or pictorial materials; difficulties with social communication are a core feature of autism in the DSM-5 (APA, 2013), and CBT is an approach which relies on the use of communication between therapist and client to encourage psychological change, for example through a Socratic dialogue. An example of a use of language which is particularly challenging for autistic clients is the use of metaphor in CBT (Stott, 2010), and so therapists who routinely use CBT with non-autistic clients will have to work to adapt their communication for autistic people, using more concrete language. Furthermore, therapists identified that problems with the therapeutic relationship, as well as systemic factors, were a barrier within treatment. This fits with the social communication difficulties which are central to autism; it is likely that clients may struggle to develop a rapport with a new therapist, and take longer to do so, and such relational difficulties are also more common in their networks of friends and family. Another barrier was that of difficulty recognising and understanding emotions; this fits with the high levels of alexithymia found in autism (Hill, Berthoz & Frith, 2004), and with the recommendations that emotional recognition components may need to be added to therapy for this group (Walters, Loades & Russell, 2016). Co-occurring problems and problem identification were another barrier; this is consistent with evidence of high levels of co-

existing problems found in autistic people, with an average of 3 co-occurring problems found in one study (Joshi et al., 2010). Finally, sensory issues were reported to be a barrier; while not a core feature of autism, sensory abnormalities are common in autistic children and adults (Leekam et al., 2007), and could necessitate adaptations to therapy such as different seating arrangements, lighting, and opportunity to move during therapy sessions.

Limitations and future research

The sample is subject to bias in that they self-selected to attend a training event about adapting CBT practice for autistic people. Thus they may not be representative of all therapists potentially working with this group. This group are likely to be interested in conducting therapy with autistic individuals, and so may have scored higher on the measures of confidence than if a broader range of therapists participated. Furthermore, the data was not stratified based on knowledge and experience of autism and CBT, due to the number of participants. Future studies should recruit a wider range of therapists, rather than focusing on those attending a training day which suggests a particular interest in autism, and stratify results by training level. It would have been useful to measure experience working with individuals with intellectual disability, as it is possible that skills with this group would have overlap with the skills needed to work with autistic individuals. The therapist confidence scale enquires about confidence in broader therapeutic skills rather than CBT specific competencies. Therapist confidence might have been higher in relation to CBT specific domains in the group of therapists surveyed. Therapists were only asked about confidence in working with autistic people. The lack of a control group, both in respect of clients and therapists, limit the conclusions that can be drawn from this study. Thus we cannot establish if the therapists in this study are more or less confident in working with non-autistic clients.

This study relied on self-report measures of practice, which may be subject to recall biases. Future research may seek to overcome this limitation by prospectively tracking adaptations made to CBT practice, for instance over the course of therapy sessions with autistic people. This study also relied on self-ratings of confidence, which may not reflect actual skills, and observer-rated scales of actual therapeutic practice may be preferable in the future. Future research should consider the effectiveness of training. This survey sought the perspectives of therapists about adaptations to CBT but not the experience of autistic people themselves. Client facing research about the usefulness of adaptations to CBT is essential to inform therapeutic developments and therapist training.

Clinical Implications

This study highlights the importance of providing training to psychological therapists in adaptations to evidence based treatment for autism, in order to ensure that autistic people receive psychological support which meets their needs. Training should follow the guidance for adaptations such as that provided by NICE and inclusion in therapist core training should be considered. There is also a clear role for specialist supervision to ensure that knowledge and skills gained in workshops translate into therapeutic practice. Encouraging therapists to feel confident and competent to shift from cognitive protocols to emphasise the behavioural components of CBT is indicated on the basis of this survey. A number of barriers have been identified and discussed in this paper, including rigidity of thinking, communication issues

and pacing. Treatment protocols at a service as well as an individual therapist level may need to be changed to address these barriers and fully meet the needs of autistic people experiencing psychological distress.

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Table 1

Presenting problems of clients with ASD diagnosis

Presenting problems	Previous clients n (%)	Current clients n (%)
Anger	8 (16)	8 (16)
Anxiety	36 (72)	21 (42)
Depression	27 (54)	15 (30)
Substance abuse	2 (4)	3 (6)

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Table 2

Adaptations made to therapy for autism

What adaptations have you made in therapy with people with autism in the past?	*n (%)*
Behavioural strategies to introduce change	*37 (74)*
Using plain English more than with other clients	*35 (70)*
A more structured and concrete approach	*35 (70)*
Psycho-education about emotions	*34 (68)*
More written and visual information than I usually use	*30 (60)*
Discussing individual hobbies and interests as part of therapy	*29 (58)*
Involving a family member or partner in sessions	*24 (48)*
Avoiding metaphors in therapy	*20 (40)*
Shorter sessions	*14 (28)*
Cognitive strategies to introduce change	*14 (28)*
Other	*5 (10)*
Longer sessions	*1 (2)*

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Table 3
TCS-ASD scores for each item (Item scale 1-5; total score 0-65)

Confidence in ability to:	Mean	SD
Be empathetic towards ASD client	3.98	.699
Understand special issues related to having autism and their impact on a person's life	2.69	.971
Communicate with ASD client	2.92	.767
Develop a therapeutic relationship with ASD client	3.10	.857
Gather information from ASD client so their difficulties can be better understood	3.04	.922
Use assessments in a way that ASD client will understand	2.31	.971
Explain results of an assessment process to ASD client	2.58	.919
Use knowledge about mental health issues in formulating problems of ASD client	2.90	.973
Help ASD client to identify issues that need to be considered in sessions	2.67	.953
Use knowledge of mental health interventions to work effectively with ASD client	2.69	.829
Identify therapeutic approaches that will be effective for ASD client	2.46	.922
Work with caregivers and other important people in the lives of people with autism	2.96	1.071
End intervention with ASD client in effective manner	2.60	.939
Total score	**41.44**	**10.63**

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Table 4

Categories of issues and challenges reported by psychological therapists in working with autistic people

Category	Frequency	Sample quotes
Rigidity or B&W thinking	20	"It can be really hard to shift, cognitive process issues, not being able to move from one topic to another"; "Difficulty with a very fixed world view"
Pacing	10	*"Inability to concentrate, poor written skills, difficult to adapt models to aid understanding, retention of information. Limitation of service I work in to meet needs, e.g. shorter more frequent sessions might have been more helpful";* " learning after client dropped out that I perhaps needed to take things slower"
Communication issues (e.g. literal use of language)	9	"struggled to find a way to communicate more abstract concepts in a way that was understandable to them"; "…has a tendency to take things literally and in a concrete way".
Problems with therapeutic relationship	8	"harder to engage"; "socially anxious within the therapeutic relationship"
Adapting or including written materials	6	"Time needed to adapt written resources"; "I used pictures to explain concepts"
Difficulty recognising and understanding emotions	6	"mainly people haven't wanted to talk about feelings, so I have used cards and printed out words for people to point to"; "challenges around describing and naming emotional experiences and thoughts"
Co-occurring problems and problem identification	5	"differentiating between anxiety relating to ASD that the client does not want to address and anxiety getting in the way of them living their life in the way they want"; "unclear multiple diagnoses"
Difficulties generalising	4	"sometimes can seem quite compliant but then not actually take the ideas forward"; "not always generalising experience"
Systemic factors	4	"having to manage parental stresses and anxieties too which put pressure for the therapy to "work" and quickly"
Not completing homework	2	"homework not done"
Sensory Issues	2	"get overwhelmed by noises, light"