Dialectical Behaviour Therapy for Adults with Intellectual Disabilities

A Thesis Submitted to the University of Manchester for the
Degree of Doctor of Clinical Psychology
in the Faculty of Medical and Human Sciences

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This thesis explores the use of adapted Dialectical Behaviour Therapy (DBT) with individuals with Intellectual and Developmental Disabilities (ID/D). DBT is a multi-modal psychological intervention that aims to increase skills in interpersonal effectiveness, distress tolerance, emotional regulation and mindfulness. It was initially developed for individuals who presented with parasuicidal behaviours, and is recommended for the treatment of Borderline Personality Disorder (BPD). This thesis is presented in five papers; a systematic literature review, three empirical papers (a, b &c), and a critical review and reflection of the research process.

The systematic literature review provides a narrative review of published research regarding the adaptations and outcomes of DBT for individuals with ID/D. Seven studies were reviewed using the Evaluative Method for Determining Evidence Based Practice (EBP) (Reichow, 2011). The findings detail the adaptations, results and critical appraisal of the research to date.

The empirical papers consider the outcomes of adults with ID/D who received adapted DBT in a community psychological therapies service. The papers present different methodologies, and combined produce a consilience of evidence regarding the suitability of DBT for this population. Paper 2a found significant reductions on measures of depression, anxiety and anger, and increased mindfulness skills amongst 18 participants following DBT. Paper 2b uses repertory grid technique to explore the psychological changes that occur following DBT for seven participants, and found overall changes in personal construing and improvements in self-esteem. Paper 2c considers the psychological changes that occur in further depth through the presentation of two case studies. The case studies consider the complexity and idiosyncrasy of the individuals and gives consideration to the use of repertory grids to identify implicative dilemmas as part of clinical assessments.

The final paper provides a critical review with personal reflections of the thesis. The author considers the research and clinical implications of the study.
Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.
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Finally I would like to thank my family for their ongoing support and encouragement. A special thanks goes to my partner Matthew, who has provided unconditional support and helped me to keep things in perspective during the last three years.
Paper 1: Dialectical Behaviour Therapy (DBT) with People with Intellectual Disabilities: A Systematic Review and Narrative Analysis

Prepared in accordance with author guidelines for Journal of Applied Research in Intellectual Disabilities

(see Appendix 1)

Word count: 6,735
Abstract

Background: Previous research (Brown et al., 2011) has reported that psychological interventions can be successfully adapted for people with Intellectual and Developmental Disabilities (ID/D). A systematic review has shown that Dialectical Behaviour Therapy (DBT) is an effective treatment for Borderline Personality Disorder (BPD) (Kliem, 2010); however no such reviews have been published regarding its applicability to people with ID/D.

Methods: Studies were identified from electronic databases, professional networks and citation tracking. Studies were selected if they reported an intervention that utilised DBT for people with ID/D. The Evaluative Method for Determining Evidence Based Practice (EBP) (Reichow, 2011) was used to assess the quality of all studies.

Results: Seven studies were identified that reported the outcomes of DBT for people with ID/D. The adaptations, results and critical appraisal of the studies are discussed.

Conclusions: The findings indicate that adapted DBT can be adapted for people with ID/D, however further high-quality research is needed to make conclusions about its efficacy.

Keywords: Dialectical Behaviour Therapy, Systematic Review, Intellectual Disabilities, Narrative Analysis, Learning Disabilities, Developmental Disabilities
Introduction

**Dialectical Behaviour Therapy (DBT)**

Dialectical Behaviour Therapy (DBT) was initially developed following identification by Linehan (1993a) that individuals with parasuicidal behaviours did not appear to have successful outcomes in alternative therapies, including cognitive and psychodynamic approaches. In these approaches, individuals typically had increased attrition compared to other clinical populations, experienced high levels of invalidation and the therapeutic content did focus not sufficiently on the individual’s ongoing motivation to die. Due to these limitations (Linehan, 1993a) developed DBT as an approach that would provide validation of individuals’ experiences whilst simultaneously promoting change, and extended this approach for use to people with Borderline Personality Disorder (BPD), as self-injurious behaviour is highly prevalent in BPD (Linehan et al., 1991). DBT is an integrative treatment model that draws upon cognitive and behavioural approaches, in addition to aspects of Eastern philosophy. It focuses on individual behavioural targets that are prioritised in a hierarchical order; life-interfering behaviours (self or others), therapy-interfering behaviours, DSM-IV Axis I disorders (American Psychiatric Association, 1994) and quality of life issues. Linehan (1993a) proposes that treatment is multi-modal, consisting of individual therapy, groups skills training, telephone support and a staff consultation team. The groups skills training is outlined in Linehan (1993b), and includes four modules; emotional regulation, interpersonal effectiveness, distress tolerance and mindfulness. Individual sessions typically focus on client’s recent behaviours, and this is supported through the use of diary cards. Recent incidents are reviewed using behavioural analyses (chaining), and alternative solutions are identified. Telephone support is available on a 24-hour basis and is provided to
support clients applying their coping skills in crises. Staff consultations are held in order to ensure that therapists remain motivated and provide effective treatment.

Initial randomised clinical trials compared DBT to treatment-as-usual and demonstrated that DBT led to reductions in frequency and severity of parasuicidal behaviours, less therapy attrition, reduced psychiatric admissions and improvements in measures of adjustment and anger for individuals with BPD (Linehan, 1993a, 1993b; Linehan et al., 1994). DBT is recommended by the National Institute for Health and Clinical Excellence (2009) for the treatment of BPD, but has also been demonstrated to be effective for a range of problems including substance misuse (Linehan et al., 1999), trichotillomania (Keuthen et al., 2011), offending behaviours (Evershed et al., 2003; Safer et al., 2001; Telch et al., 2001), anger (Keuthen et al., 2011) and eating disorders (Rosenfeld et al., 2007; Sampl et al., 2010). It has also been successfully adapted for use with adolescents (James et al., 2008; Nelson-Gray et al., 2006; Rathus & Miller, 2002).

Systematic reviews of DBT

A Cochrane review found improved outcomes for DBT compared to standard care for self-harm, but concluded that further evidence was needed in order to make clear conclusions (Hawton et al., 1999). A further Cochrane review found that DBT had improved outcomes on anger, parasuicidal and mental health in BPD (Binks et al., 2006). A meta-analysis of DBT has shown that it is an effective treatment in reducing suicidal and self-injurious behaviours for individuals with BPD (Kliem, 2010).
Mental Health Services for People with ID/D

It is estimated that 25-40% of individuals with ID/D in England have additional mental health needs (Giraud-Saunders, 2011). A review of personality disorder in people with ID/D concluded that it was not possible to estimate its prevalence due to findings ranging from 1-91% in community settings (Alexander & Cooray, 2003), but is likely to be higher than in the general population (Pridding & Procter, 2008).

Recent government reports have highlighted that improvements need to be made in adapting services to the needs of people with ID/D, who should have access to the same range of mental health services as the wider population (Department of Health, 2010; Prince et al., 2007). Brown et al. (2011) conducted a review of psychological therapies available to people with ID/D, and identified that psychodynamic psychotherapy, cognitive-behavioural therapy, counselling and systemic family therapy can be successfully adapted. Brown et al. (2011) did not include DBT in their review due to a lack of published research. A systematic review of mindfulness-based interventions for people with ID/D (Chapman et al., 2013) also excluded evaluations of DBT.

Rationale and Review Aim

There has not, to date, been a systematic review of the evidence regarding DBT for individuals with ID/D. This review aims to systematically evaluate the available evidence in order to explore the adaptations that have been made to DBT for individuals with ID/D, and to evaluate any outcomes reported.
Methodology

Search Strategy

The systematic review followed the process described by the Centre for Reviews and Dissemination (2009). The following databases were searched in July 2013: AMED, EMBASE, HMIC, MEDLINE, PSYCINFO and PSYCARcTICLES using the following search terms: (learning AND disab*) OR (mental* AND retard*) OR (intellectual* AND disab*) OR (developmental* AND disab*) AND (dialectical AND behav* AND therapy) OR DBT. Citation tracking and checking of reference lists from journal articles identified by the search were carried out, and professionals and academics known to be interested in the field were also contacted to enquire whether they were aware of additional publications.

Papers were included if they outlined a study evaluating an intervention described as being based upon DBT with people with ID/D and were published in an English language journal from 1980-July 2013.

Selection Criteria

For inclusion in the review, studies were required to be (i) interventions that are described as including DBT skills as a component, (ii) empirical research, (iii) included people with ID/D.

Search Results

Once duplicates were removed, the search identified 117 papers. Ninety-six papers were excluded following title and abstract review. A further 14 were excluded following full review. The selection process is shown in Figure 1. Seven papers were included in the current review.
Quality Assessment, Critical Appraisal and Data Extraction

The quality of the studies was assessed using the Evaluative Method for Determining Evidence Based Practice (EBP) (Reichow, 2011). This method was originally developed for use in reviews relating to Autistic Spectrum Disorders (ASD), it has also previously been used for similar reviews of interventions for individuals with ID/D (Chapman et al., 2013). The Evaluative Method for Determining EBP provides a rubric for evaluating group research consisting of primary quality indicators (e.g. participant characteristics, presence of a comparison condition) on a trichotomous ordinal scale (high, acceptable or weak quality) and secondary quality indicators (e.g. random assignment, inter-observer agreement). The ratings from the primary and secondary quality indicators are combined to produce a strength of research rating (strong, adequate or weak). Research was considered ‘Strong’ if it received ratings of high on all primary quality indicators and had evidence at least four secondary quality indicators. It was considered ‘Adequate’ if it received high quality ratings on at least four primary quality indicators, with no unacceptable primary quality indicators and had at least two secondary quality indicators. It was considered ‘Weak’ if it received fewer than four high primary quality indicators or had less than two secondary quality indicators (Reichow, 2011). Each study was evaluated independently by two members of the review team who then discussed each criterion until agreement was met.

Analysis

The studies identified did not include any randomised controlled trials, thus a meta-analysis was not possible. A narrative analysis was used to describe and compare the
DBT for People with ID/D: A Systematic Review

main findings and discuss the included studies’ methodological strengths and limitations using guidelines produced by the Centre for Reviews and Dissemination (2009).

**Results**

Seven relevant studies were identified. One studied adolescents with ID/D (Charlton & Dykstra, 2011), and the remaining six studied adults with ID/D. All studies reported that they used an adapted DBT programme based on the manual produced by Linehan (1993b). One study used adapted DBT as a component of a sex offender treatment programme (Sakdalan & Collier, 2012). All studies presented quantitative findings, and one paper (Hall et al., 2013) also included a qualitative component.

**DBT for Adolescents with ID/D**

One study has evaluated DBT for adolescents with ID/D. An overview is presented in Table 1.

*Table 1 here*

**Provision of DBT for adolescents with ID/D**

Charlton and Dykstra (2011) reported results regarding their DBT for Special Populations (DBT-SP) programme that was offered to all clients who attended a day centre for adolescents who had developmental and behavioural needs in the United States of America (USA).

DBT-SP included the four components of DBT outlined by Linehan (1993a); group skills training, individual therapy, telephone coaching and staff consultation. Charlton and Dykstra (2011) provided twice-weekly group skills training of 30-60
minute duration, compared to the weekly 90 minute sessions traditionally provided by DBT. They outlined the additional adaptations made to the group skills training which included adjustments to the presentation and language to enhance the understanding of people with ID/D and increase the appeal of the content to adolescents. They also simplified some of the concepts to make them more suitable for adolescents with ID/D, and provided increased feedback and rehearsal in order to increase learning and generalisation. Individual therapy was reported to require fewer adaptations in DBT-SP, but the primary change was the inclusion of the reviewing of diary cards within these sessions, rather than in the skills training group. No adaptations were reported regarding telephone consultation and staff consultation.

**Impact of DBT for adolescents with ID/D**

Charlton and Dykstra (2011) reported the outcomes of 19 students who completed two or more DBT-SP skills training modules. They reported that following DBT-SP clients were noted to be using ‘DBT-SP language’ and were observed to be using skills they had learnt, however, these aspects were reported anecdotally and were not quantified. The authors also reported the progression of sixteen students following DBT-SP, with ten having moved to less restrictive environments. However the details of the restrictions in the evaluated service were not operationalised and a comparison was not available regarding the typical progression of students from the service.

In addition, Charlton and Dykstra (2011) used information from daily diary cards as an outcome measure. They looked at the number of negative actions, thoughts and feelings that were self-reported by students, and reported significant negative
correlations with months in the programme. The grouping of items of the diary cards did not pick up the severity of outcomes, for example attempting suicide, arguing and avoiding work were all considered equally as action items. It is unclear whether the results were impacted by being calculated as cumulative months rather than individual days, and the rationale for not using the daily scores was not made clear. This could potentially lead to significant events, such as suicide attempts (an action item) being overlooked.

**DBT for Adults with ID/D in Community Services**

Three studies considered adults with ID/D who presented with risks or problem behaviours in the community and received adapted DBT (Brown et al., 2013; Hall et al., 2013; Lew et al., 2006). A summary is presented in Table 2.

[Table 2 here]

**Provision of DBT for Adults with ID/D in Community Services**

Brown et al. (2013) conducted the largest study to date regarding DBT for people with ID/D in their longitudinal study of adults who had ‘developmental disabilities’ and a history of problem behaviours in the USA. They reported that participants all received treatment at Justice Resource Institute-Integrated Clinical Services (ICS), and presented with challenging behaviours that had not improved in traditional mental health services. Lew et al. (2006) described their adapted DBT provided by a ‘mentally retarded’ service in the USA for clients who presented with ‘problem behaviours’ in the community or were underserved by current services. Hall et al. (2013) described the referral criteria for their DBT programme, namely that participants have an ID/D and presented with difficulties related to emotional
regulation, managing crisis, and interpersonal effectiveness. It was suggested that the group may be of value to those who present with impulsive behaviours including self-injurious behaviour and aggression.

All studies discuss the adaptations that have been made to their DBT programmes, and all cite that they are based on the structure and content outlined by Linehan (1993a). All studies included group skills training based on the manual developed by Linehan (1993b), and describe the adaptations to this which included simplified language and concepts, and increased visual aids to aid comprehension. Brown et al. (2013) also described providing additional individual support with the group, whilst Lew et al. (2006) included staff or family members to support and coach participants. All studies included weekly therapy, with Lew et al. (2006) outlining how for some individuals this consisted of twice-weekly 30 minutes appointments. Two studies (Brown et al., 2013; Lew et al., 2006) discussed how DBT self-monitoring procedures (diary cards) were adapted; with simplification of concepts and staff support in their completion. Both studies (Brown et al., 2013; Lew et al., 2006) also reported that their programmes included the 24-hour availability of DBT trained clinicians for coaching in crises, but do not describe any adaptations regarding this. Hall et al. (2013) reported that a carers’ component was included as a substitute for 24-hour support, however the details of this are not discussed further. Brown et al. (2013) also provided monthly skills system training to support staff and increased multidisciplinary input to promote skill generalisation. All studies provided a therapist consult, but adaptations to this are not discussed.

In addition to DBT, Brown et al. (2013) provided clients with sexual offending histories with an additional hour per week of group offence-related work. They also described the use of additional behavioural treatment plans with participants,
DBT for People with ID/D: A Systematic Review

including behavioural analysis of maladaptive behaviours and the use of tangible rewards for adaptive behaviours.

The studies varied in the length of treatment provided. Brown et al. (2013) reported a mean treatment length of 82 months (6.9 years), and it is not reported whether any participants were considered suitable for therapy discharge during this period. The authors do not explain the rationale for the long treatment protocol, which is of considerable length given that DBT is typically delivered for one-year in the general population (Linehan et al., 2006). Lew et al. (2006) delivered their weekly group skills training over 23 weeks and repeated this three times. Hall et al. (2013) do not report the length of their programme.

Impact of DBT for Adults with ID/D in Community Services

Brown et al. (2013) included all individuals who were receiving services at the ICS at the start of the research (n=40; 35 males, 5 females). Brown et al. (2013) reported that all participants had a diagnosis of ‘developmental disabilities’. They report the individual full scale intellectual quotient (FSIQ) scores for all participants, however they do not report the assessment tool used to ascertain these. Eight participants (17.5%) did not have a FSIQ of less than 70, and their diagnoses included ‘dementia-head trauma’, ‘attention-deficit/hyperactivity disorder’, ‘pervasive developmental disorder’ and ‘frontal lobe syndrome’. Two participants with a FSIQ greater than 70 had a ‘not otherwise specified’ diagnosis, and one participant (FSIQ=77) had ‘pedophilia’ as his only diagnosis. Ninety-five percent of participants had at least one Axis I disorder (American Psychiatric Association, 1994), and 70% (n=28) had spent time in the two years prior in psychiatric hospital, residential treatment or locked forensic settings. All participants were reported to have a history of problem
behaviours, defined as suicide attempts (18%), fire setting (23%), self-injury (48%), stealing (65%) or aggression (80%), and 67% of participants had a history of more than four problem behaviours. Sixty percent of participants had a history of psychiatric hospitalisation, and 45% had forensic histories.

Brown et al. (2013) measured outcomes using incident reports which were categorised on a trichotomous scale (‘red flags’, ‘dangerous situations’ and ‘lapses’), with the dependent variable being the number of problem behaviours in a month. T-tests indicated that there were significant reductions in all categories of challenging behaviours after four years of treatment, with the greatest change occurring within the first year, however the authors highlight that these descriptive statistics of incidents do not include missing data. Random regression modelling was used to include the potential impact of missing data on incident reductions, and found that whilst the greatest reduction in lapses was within the first year, by the fourth year it had reduced by 76%. The authors explored which variables were most predictive of improvements in challenging behaviours. Although only small numbers were available, they found that the presence of BPD (independent of self-injury or aggression) and aggression were predictive of larger reductions in lapses, with age being a predictor of aggression. Participants who had intermittent explosive disorder (IED) had significantly smaller reductions in lapses, indicating that DBT may be a less effective treatment for this group. The authors did not find a significant relationship between FSIQ and reduction in lapses. The authors did not include baseline data or a comparison condition; however they did report comparisons with baseline admissions to psychiatric hospital, residential treatment or locked forensic settings, with only two participants having admissions within the first two years of DBT-SS, compared to 28 in the two years prior. Longitudinal outcomes are not
reported further than four years, despite the mean length of treatment being considerably longer than this.

Lew et al. (2006) reported the outcomes of the first cohort of their DBT intervention which consisted of eight females, seven of whom had diagnoses of mild ‘mental retardation’, and one who had moderate ‘mental retardation’. The mean number of Axis I disorders per participant was 1.38, and five participants had a diagnosis of personality disorder. Additionally, 50% had significant medical conditions. One participant chose not to attend group skills training, and instead received this on an individual basis.

Lew et al. (2006) measured outcomes using an adapted version of the Youth Risk Behaviour Survey (RBS) (Centers for Disease Control and Prevention, 2001) in which they selected the 22 questions that they felt were most relevant. Details of the questions selected, or their psychometric properties are not reported. The adapted RBS was completed at six-monthly intervals by a team of between three to five individuals in order to ensure agreement. Of the 22-items measured, it was reported that 54% of items had worsened from baseline within the first six months. By twelve months there was improvement from baseline on 60% of items and this remained static at 18 months, however at the 12 and 18-month assessment there remained a worsening on 18% of items. The authors suggest that the initial deterioration on the majority of items may be attributed to participants uncovering traumas prior to developing skills to address these. Lew et al. (2006) report that at the baseline six participants engaged in self-injurious behaviours, and this had decreased to two at 18 months, however further details about the domains of risk that improved or deteriorated are not reported.
Hall et al. (2013) conducted a mixed methodology study and measured outcomes of seven participants in the first cohort of their DBT programme. The demographics of participants, including gender and age, were not reported. The authors found decreases on measures of anxiety and depression. The authors also found that participants demonstrated an increase in the use of mindfulness skills following treatment. The authors do not report any statistical analyses due to the small numbers, and there is no inclusion of any measures directly related to risk or impulsive behaviours.

Hall et al. (2013) also completed brief semi-structured interviews with five participants who attended the DBT group to explore whether individuals felt that the DBT programme helped them manage difficult emotions and situations. Using a thematic analysis, the authors highlighted four themes; ‘good things about the group’, ‘bad things about the group’, ‘after the group’ and ‘in the future’. Overall the feedback was reported to be positive, with participants recommending it to others with similar difficulties, identifying positive changes in themselves including reduced self-harm or police involvement, finding the support of the group helpful and the material being presented in a format that was understandable. One participant commented that they found it difficult to retain information following the group, and that they would have liked the group to continue for longer. Another participant found it difficult when other group members had sporadic attendance. Participants reported that they continued using the skills they had learnt in the group, particularly mindfulness and relaxation which was aided through the use of a CD. Suggestions for further improvements to the DBT programme included the opportunity for clients to attend two cohorts of the skills group and the need for individual considerations regarding the length of the group.
Three studies considered adapted DBT for individuals with ID/D who received forensic services (Morrissey & Ingamells, 2011; Sakdalan & Collier, 2012; Sakdalan et al., 2010). A summary is presented in Table 3.

[Table 3 here]

Provision of DBT for Adults with ID/D in Forensic Services

Morrissey and Ingamells (2011) evaluated a pilot adapted DBT programme in a high secure ID/D services setting in the United Kingdom. Referral criteria to the programme included the requirement to meet the diagnostic criteria for at least one personality disorder and to have difficulties with lack of emotional or behavioural regulation. Sakdalan et al. (2010) reported the results of a DBT skills group training programme provided by a regional forensic psychiatry service in New Zealand. Sakdalan and Collier (2012) reported the results of a seven-month pilot programme that incorporated a cognitive behavioural sex offender treatment programme for people with ID/D (SOTSEC-ID, 2010) with the DBT skills group training programme described in Sakdalan et al. (2010).

Only one paper reported results of a full DBT programme (Morrissey & Ingamells, 2011), with both Sakdalan et al. (2010) and Sakdalan and Collier (2012) providing only the DBT skills training programme. All three papers cite that their programme was based on that described by Linehan (1993a), and Sakdalan et al. (2010) and Sakdalan and Collier (2012) used the same group skills programme, adapted for people with ID/D by Verhoeven (2007). Morrissey and Ingamells (2011) discussed how their adaptations primarily included simplification of language and the number
of skills taught, repetition of concepts, increased creativity to promote engagement and understanding, and increased use of visual images. The authors also discussed the use of having smaller than typical DBT programmes, with groups having between four and five members, and increased focus on individual workbooks and individual support with homework activities. Participants also received individual therapy as described by Linehan (1993a), however the diary cards were simplified and therapists also consulted clients’ electronic notes to prompt analyses of any significant incidents. The programme did not include telephone support, although staff with an awareness of DBT were often available to participants. The consultation team did not meet weekly, but instead met approximately four to six-weekly.

Impact of DBT for Adults with ID/D in Forensic Services

Morrissey and Ingamells (2011) reported that 25 clients had completed all four modules of the DBT skills group at least once, with many also receiving individual therapy. They reported that no clients had dropped out of DBT; however they only reported the outcomes of six clients who received both group skills and individual therapy. It is not known whether these participants form a representative sample of the population; their demographics are not reported, and it is unknown whether any repeated modules. Morrissey and Ingamells (2011) reported that there was a significant reduction in individuals’ scores on the Global Severity of Distress Scale of the BSI (Derogatis, 1993) following DBT. They did not find significant differences in incidents of aggression, however attributed this to a low baseline level in high secure services. At a 12-month follow-up participants were more likely to have moved on to conditions of lower security than those on a waiting list control
DBT for People with ID/D: A Systematic Review

(n=5). It is unclear whether other outcome data was collected by the authors but not reported, for example, other indices of the BSI.

Sakdalan et al. (2010) reported that nine participants started the skills group, but only six (five males, one female) completed the programme. Participants were considered to have completed the group if they attended at least 80% of sessions. All participants had a formal diagnosis of intellectual disability and the mean IQ of the group was 57, however the assessment tool used to measure this was not reported. Four participants were in 24-hour supported accommodation, and two were in medium secure facilities during their group attendance. The referral criteria to the group are not described, however it is reported that five participants had previous charges or convictions for violent behaviours. Sakdalan et al. (2010) reported significant improvements on risk and strength scores on the START (Webster et al., 2004) and global functioning as measured by the HoNOS-LD (Roy et al., 2002). They did not find significant improvements in coping skills as measured by the VABS-II (Sparrow et al., 2005). Data from incident reports was collected, but not reported as it was considered to be insufficient. A DBT assessment form was completed following the programme, however the details of this are not provided. The feedback provided by clients is reported to indicate that all participants enjoyed the group, but felt that further adaptations and support with material could be provided.

Sakdalan and Collier (2012) reported that five clients attended the programme, and out of these three consented to having their outcomes evaluated. All three participants were male, with two being in their mid-30s and one in their mid-20s. The demographics of those clients who did not consent are not reported so it is not known whether the participants were a representative sample of all clients who had completed DBT. All three participants were placed in secure facilities for people
with ID/D, had been convicted of sexual offences and were considered to be a high risk of sexual recidivism. Sakdalan and Collier (2012) presented their outcomes in a multiple case series design and reported that all participants had improved scores on risk (SVR-20) (Boer et al., 2010), improvements in sexual knowledge (ASK) (Butler et al., 2003), victim empathy (VES) (Beckett et al., 1994) and cognitive distortions relating to sexual offending (SOSAS) (SOTSEC-ID, 2010) following treatment. Only one participant showed improvements on attitudes to sex offending (QACSO) (Lindsay et al., 2000). All participants had reductions in incident reports of sexually abusive behaviours in the six months following treatment, but two had an initial increase during treatment compared to the six months prior. One participant had reduced physical aggression following treatment, and one had reduced verbal aggression. All participants had increased reports of physical aggression during treatment, although it is of note that the baseline levels of physical and verbal aggression were low. It is not noted how incidents were coded.

**Critical Appraisal**

All studies received a review rating of ‘Weak’ using the Evaluative Method for Determining EBP (Reichow, 2011). The quality assessments are presented in Appendix 2. Studies generally had small numbers of participants (mean N=13, range 3-40), resulting in poor external validity and limited generalisability of the findings. In addition to their limited size, studies varied in their recording of demographic information including gender, age and diagnoses, leading to difficulties inferring for whom DBT would be most beneficial. Linehan (1993a) initially developed DBT primarily for females; however, in the studies that reported gender in this review, only 17% of participants were female. This may be influenced by the inclusion of a number of studies in forensic services, where the population of males is considerably
higher (Bartlett & Hassell, 2001). DBT is recommended for individuals with a diagnosis of BPD (National Institute for Health and Clinical Excellence, 2009), however only one study (Brown et al., 2013) considered whether this was a contributory factor to the efficacy of DBT. Several of the studies did not define their referral criteria for their service or DBT, and this further contributed to the difficulties generalising the findings to a larger population. Related to this, the outcome measures used varied across studies, and there was a lack of clarity regarding the goals of DBT. Several studies used incidents as an outcome measure, however, previous research has found that staff under-report incidents (Lion et al., 1981), in addition to there being potential bias by staff in categorising incidents. Reliability and validity of the measures used, and inter-rater reliability were not reported.

One study (Brown et al., 2013) gave consideration to treatment fidelity, and this was based on the evaluation of one session by DBT experts. Several studies included additional therapies for some participants including family therapy (Charlton & Dykstra, 2011) and sex-offender treatment (Brown et al., 2013); Sakdalan and Collier (2012) integrated DBT group skills with sex offender treatment for all participants. None of the studies differentiated the outcomes of those participants who received additional therapies, and it is unclear whether additional treatments had a confounding effect.

A comparison condition was included in one study (Morrissey & Ingamells, 2011), however this was a waiting list control group and it is not reported whether they were a similar group. Two studies considered a period of baseline data (Sakdalan & Collier, 2012; Sakdalan et al., 2010). None of the studies gave consideration to the outcomes of participants who dropped out of DBT or who did not meet the criteria to
have received sufficient DBT to be included; these participants could have potentially provided a comparison condition. The absence of comparisons makes it difficult to infer whether improvements are greater than would be expected spontaneously or through other available treatments. It is also unknown from the data whether any positive outcomes from DBT have a longstanding effect.

All the studies were evaluated by individuals involved in the therapy; additionally, the authors did the majority of the data collection, and were not blinded to the aims of the study. Sakdalan et al. (2010) attempted to mitigate some of the effects of this by having pre-assessment measures completed by participants’ key workers and not shared with the therapy team who completed the post-assessment measures. The involvement of therapists as researchers may lead to potential bias as they have an interest in there being positive outcomes, and may be less likely to report negative outcomes.

**Discussion**

The studies identified by this systematic review indicate that the development of DBT services for people with ID/D is being considered internationally, and they demonstrate that DBT can be successfully adapted for this population across a range of settings. However, the available research does not provide sufficient information regarding the extent of the adaptations made, or the rationale and evidence for the adaptations. The published studies do not have a robust design, such as blinded allocation to groups, independent researchers or measures of adherence to treatment protocols. Therefore it is not possible to conclude that adapted DBT is an effective treatment for individuals with ID/D or that it is responsible for the positive outcomes reported such as improvements on measures of risk, and a reduction in symptoms.
and challenging incidents. There is not enough good quality evidence to make further conclusions regarding the subsets of people with ID/D who might particularly benefit from DBT as there is insufficient information about the relationship of factors such as age, gender and diagnoses on outcomes. The studies do not provide sufficient information regarding ethnicity to infer whether DBT is acceptable to people from diverse cultural backgrounds.

The reported outcomes have implications for ID/D services who wish to provide an approach for those clients presenting with high levels of risk behaviours (including offending behaviour) or difficulties with emotional regulation. Common adaptations to DBT included the simplification of concepts and language, repetition of content, the use of visual aids and increased support for individuals in completing therapy materials. Feedback from people with ID/D suggests that they found it to be a suitable therapeutic approach, and that whilst adaptations had been made; further work could be done to ensure that it is accessible for people with ID/D. Consideration also needs to be given to whether DBT services are being accessed by people with ID/D in mainstream mental health services, and whether these services are suitable. Future studies need to clearly define their referral criteria for DBT, and provide demographic information about their participants.

The positive findings of the reviewed research should be considered cautiously given the considerable methodological weaknesses of the studies. As all of the research reviewed was rated as ‘Weak’ using the Evaluative Method for EBP (Reichow, 2011), it is difficult to infer that there is emerging evidence for the efficacy of DBT for people with ID/D. It is apparent that stronger evidence is needed in order to conclude that DBT should be recommended for people with ID/D.
Whilst all studies based their interventions on the model of DBT initially outlined by Linehan (1993a), their adherence to the overall fidelity of the model was varied; ranging from providing only DBT skills based group therapy to a multi-modal approach incorporating individual and group therapy, telephone support and staff consultation. Some studies explored interventions that included DBT as a component alongside offence-related work or family therapy. It is important that future research is clear whether they are solely evaluating DBT or other interventions that result in change. In addition, recent systematic reviews have demonstrated that mindfulness is appropriate for people with ID/D (Chapman et al., 2013; Hwang & Kearney, 2013), and given that mindfulness is a component of DBT, it is important that future studies differentiate which components of the interventions are leading to change. The reviewed studies do not explore the mechanism that is used by DBT to get positive outcomes, and further research needs to develop this conceptualisation.

Studies designed with appropriately powered sample sizes and random allocation to treatment and control groups are needed in order to infer whether DBT is responsible for improvements in symptoms and incidents. Researchers should be independent of the therapy and blind to the allocation of participants. In addition, the DBT provided should more robustly adhere to the multi-modal approach developed by Linehan (1993a) without additional therapeutic approaches being used. Appropriate qualitative research could be used to compliment this work to understand the experiences of those who have delivered and received DBT and identify which components they believe are useful.
**Conclusion**

In conclusion, there is some evidence that DBT can successfully be adapted for individuals with ID/D and have the potential to lead to improvements on measures of well-being (e.g. symptoms of mental health, hospital admissions) and risk (e.g. risk assessment measures, incidents, conditions of security), but further and more methodologically sound research is required before more confident clinical recommendations can be made.
References


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Roy, A., Matthews, H., Clifford, P., Martin, D., & Fowler, V. (2002). *The Health of the Nation Outcome Scales for People with Learning Disabilities (HoNOS-LD)*: Royal College of Psychiatrists’ Faculty of Learning Disability and the British Psychological Society’s Centre for Clinical Outcomes Research and Effectiveness (CORE).


Table 1: Studies evaluating DBT for adolescents with ID/D

<table>
<thead>
<tr>
<th>Study</th>
<th>Aims</th>
<th>Study type</th>
<th>Rigour</th>
<th>Sample</th>
<th>Outcomes measured</th>
</tr>
</thead>
</table>
| Charlton and Dykstra (2011)     | To discuss the adaptations made to DBT and their effectiveness for adolescents who have ID/D and mental illness | Multiple baseline design across participants | Weak    | N=19 (demographics not reported) Adolescent clients with significant developmental and behavioural needs in a day centre who were receiving DBT for special populations (DBT-SP) | • Observational results  
• Progression following programme  
• Daily diary cards- action items, thoughts and feeling items |
## Table 2: Studies evaluating DBT for people with ID/D in community services

<table>
<thead>
<tr>
<th>Study</th>
<th>Aims</th>
<th>Study type</th>
<th>Rigour</th>
<th>Sample</th>
<th>Outcomes measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown et al. (2013)</td>
<td>To evaluate whether DBT with a skills system (DBT-SS) leads to a reduction in challenging behaviours amongst individuals with ID/D</td>
<td>Multiple baseline design across participants</td>
<td>Weak</td>
<td>N=40 (Males=35, Females=5, aged 19-63) All received DBT-SS. All participants were diagnosed with ‘developmental disabilities’ with a mean IQ of 60.8. All had a history of severe problem behaviours.</td>
<td>- Frequency and type of challenging behaviours in incident reports</td>
</tr>
</tbody>
</table>
| Hall et al. (2013)           | To evaluate a DBT group skills programme for adults with ID/D in a community setting | Mixed methods; Qualitative and Repeated measures design | Weak   | N=7 (quantitative) N=5 (qualitative) (demographics not reported) Participants with an ID/D who were attending the psychological therapies services and were receiving adapted DBT. Highlighted that it would benefit those who exhibited impulsive behaviours including self-harm or aggression. | - Glasgow Depression Scale for People with a Learning Disability (GDS) (Cuthill et al., 2003)  
- Glasgow Anxiety Scale for People with an Intellectual Disability (GAS) (Mindham & Espie, 2003)  
- Cognitive and Affective Mindfulness Scale-Revised (CAMS-R) (Feldman et al., 2007) |
| Lew et al. (2006)            | To evaluate whether DBT can be provided for individuals with ID/D    | Repeated measures design            | Weak   | N=8 (All females, aged 25-61) All received adapted DBT. 7 were diagnosed with ‘mild mental retardation’ and one was ‘moderately retarded’. All presented with risks in the community and/ or were clinically underserved using current services. The average number of Axis 1 diagnoses was 1.38 per individual (38%=major depression, 25% schizoaffective disorder). 5/8 had diagnosed personality disorders. | - Adapted Youth Risk Behaviour Survey (RBS) (Centers for Disease Control and Prevention, 2001); 22 out of 87 items selected |
Table 3: Studies evaluating DBT for people with ID/D in forensic setting

<table>
<thead>
<tr>
<th>Study</th>
<th>Aims</th>
<th>Study type</th>
<th>Rigour</th>
<th>Sample</th>
<th>Outcomes measured</th>
</tr>
</thead>
</table>
| Morrissey and Ingamells (2011) | To discuss the implementation of, and evaluate DBT within a High Secure ID/D service | Repeated measures design | Weak   | N=6 (All males, ages not reported) All patients received adapted DBT within the National High Secure Learning Disability Service. All met diagnostic criteria for at least one personality disorder and had problems with lack of emotional or behavioural recognition. | • Global Severity of Distress Scale of the Brief Symptoms Inventory (BSI) (Derogatis, 1993)  
• Incidents of aggression  
• Security level 12 months after treatment completion |
| Sakdalan et al. (2010)       | To evaluate the effectiveness of an adapted DBT group skills training programme on offenders with ID/D with a history of violent crimes | Repeated measures design  
No follow-up       | Weak   | N=6 (Males=5, Females=1, aged 23-29) All attended DBT group skills training programme. Forensic clients with ID/D (7=24hr supported accommodation, 2=medium secure facility). All had prior charges and/or convictions for violent offences. | • Short-Term Assessment of Risk and Treatability (START) (Webster et al., 2004)  
• Coping Skills subdomain of Vineland Adaptive Behaviour Scales- Second Edition (VABS-II), (Sparrow et al., 2005)  
• Health of the Nation Outcome Scales for People with Learning Disabilities (HoNOS-LD) (Roy et al., 2002)  
• Incident reports (not reported)  
• DBT assessment form |
| Sakdalan and Collier (2012)  | To evaluate an adapted sex offender treatment programme which included an adapted DBT group skills training programme for individuals with ID/D | Multiple case study design | Weak   | N=3 (All males, 1 in mid-20s, 2 in mid-30s) All completed SAFE-ID sex offender treatment programme and adapted DBT group skills programme. Two lived in secure-ID facility and one lived in a community secure residential ID facility. All had committed sexual offences and were considered high risk of sexual recidivism. | • Adapted Sexual Violence Risk-20 (SVR-20) (Boer et al., 2010)  
• Assessment of Sexual Knowledge (ASK) (Butler et al., 2003),  
• Adapted Sex Offender Self-Appraisal Scale (SOSAS) (SOTSEC-ID, 2010)  
• Questionnaire Attitudes Consistent with Sex Offending (QACSO) (Lindsay et al., 2000)  
• Victim Empathy Scale (VES) (Beckett et al., 1994)  
• Incident reports |
Figure 1: Flow chart of study selection process

Publications identified for review (n=117):
- Database search (n=113)
- Internet searching (n=0)
- Professional networks (n=2)
- Content alerts (n=1)
- Reference tracking (n=1)

Publications excluded after sifting titles and abstracts (n=96)

Publications retrieved that were potentially relevant for data extraction (n=21)

Articles excluded after detailed relevance checks (n=14):
- Doctoral dissertation (n=2)
- Book chapter (n=5)
- Discussion piece (n=3)
- Conference abstract (n=1)
- Narrative review that excludes DBT (n=1)
- Not ID/D (n=1)
- Duplicate publication (n=1)

Publications included in review (n=7)
Paper 2a: Dialectical Behaviour Therapy (DBT) for Adults with Intellectual Disabilities

Prepared in accordance with author guidelines for Journal of Applied Research in Intellectual Disabilities

(see Appendix 1)

Word count: 3,503
**Abstract**

Dialectical Behaviour Therapy (DBT) is a multi-modal treatment that has been shown to be effective for individuals with Borderline Personality Disorder (BPD) in the general population. There is evidence that psychological therapies can be adapted for individuals with Intellectual and Developmental Disabilities (ID/D), however there is little research regarding DBT for adults with ID/D to date. The current study found significant reductions on measures of depression, anxiety and anger amongst 18 adults with ID/D who received DBT in a community psychological therapies service. Participants also had increased mindfulness skills following DBT. There were some additional improvements in anxiety and mindfulness for participants who repeated the DBT skills group. The findings show that DBT can be successfully adapted for adults with ID/D, however future research needs larger sample sizes and further explorations regarding which aspects of DBT are effective, and for whom the intervention is most useful.

**Keywords:** Dialectical Behaviour Therapy, DBT, Intellectual Disabilities, Learning Disabilities, Developmental Disabilities

**Introduction**

*Dialectical Behaviour Therapy (DBT)*

Dialectical Behaviour Therapy (DBT) was initially developed by Linehan (1993a) who identified that individuals with parasuicidal behaviours frequently disengaged from alternative therapies, including cognitive and psychodynamic approaches, and the content of these approaches did not target the individual’s suicidal behaviour sufficiently. The approach was then broadened for use to people with Borderline
DBT for Adults with Intellectual Disabilities

Personality Disorder (BPD), as self-injurious behaviour is highly prevalent in BPD (Linehan et al., 1991). DBT is an integrative treatment model that draws upon cognitive and behavioural approaches, in addition to aspects of Eastern philosophy. It focuses on individual behavioural targets that are prioritised in a hierarchical order; life-interfering behaviours (self or others), therapy-interfering behaviours, DSM-IV Axis I disorders (American Psychiatric Association, 1994) and quality of life issues. Linehan (1993a) proposes that treatment is multi-modal, consisting of individual therapy, groups skills training, telephone support and a staff consultation team. The group skills training is outlined in Linehan (1993b), and includes four modules; emotional regulation, interpersonal effectiveness, distress tolerance and mindfulness. Individual sessions typically focus on client’s recent behaviours, and this is supported through the use of diary cards. Recent incidents are reviewed using behavioural analyses, and alternative solutions are identified. Telephone support is available on a 24-hour basis and is provided to support clients in applying their coping skills in crises. Staff consultations are held to ensure that therapists remain motivated and provide effective treatment.

Initial randomised clinical trials compared DBT to treatment-as-usual and demonstrated that DBT led to reductions in frequency and severity of parasuicidal behaviours, less attrition in therapy, reduced psychiatric admissions and improvements in measures of adjustment and anger for individuals with BPD (Linehan et al., 1993; Linehan et al., 1994). A meta-analysis of DBT has shown that it is an effective treatment in reducing suicidal and self-injurious behaviours for individuals with BPD (Kliem, 2010), and it is recommended by the National Institute for Health and Clinical Excellence (2009).
DBT for Adults with Intellectual Disabilities

DBT has been demonstrated to be effective for a range of problems including substance misuse (Linehan et al., 1999), trichotillomania (Ferguson et al., 2013), offending behaviours (Evershed et al., 2003; Safer et al., 2001; Telch et al., 2001), anger (Keuthen et al., 2011) and eating disorders (Rosenfeld et al., 2007; Sampl et al., 2010). It has also been successfully adapted for use with adolescents (James et al., 2008; Nelson-Gray et al., 2006; Rathus & Miller, 2002).

**Psychological Therapies for People with ID/D**

It is estimated that 25-40% of individuals with Intellectual and Developmental Disabilities (ID/D) in England have additional mental health needs (Giraud-Saunders, 2011). A review of personality disorder in people with ID/D concluded that it was not possible to estimate its prevalence due to findings ranging from 1-91% in community settings (Alexander & Cooray, 2003), but is likely to be higher than in the general population (Pridding & Procter, 2008). Studies have shown that self-injurious behaviour is highly prevalent amongst individuals with ID/D (Cooper et al., 2009) and that suicide is at least as likely as in the wider population (Hassiotis et al., 2011). ‘Challenging behaviour’ and aggression are frequently considered to be common amongst adults with ID/D (Cooper et al., 2009; McClintock et al., 2003), and there is little evidence of pharmacological treatment being effective (Matson & Neal, 2009). Similarly, there is a paucity of evidence for the effectiveness of medication for self-harm (Gormez et al., 2014) amongst adults with ID/D.

Recent UK government reports have highlighted that improvements need to be made in adapting services to the needs of people with ID/D, who should have access to the same range of mental health services as the wider population (Department of Health, 2010; Prince et al., 2007). Brown et al. (2011) conducted a review of psychological
therapies available to people with ID/D, and identified that psychodynamic psychotherapy, cognitive-behavioural therapy, counselling and systemic family therapy can be successfully adapted.

**DBT for People with ID/D**

As well as guidelines suggesting therapies should be adapted for the ID/D population, there are also financial considerations as, given the current economic climate, there is pressure for healthcare services to be provided in a cost-effective manner. Baillie and Slater (2014) propose that DBT for individuals with ID/D who present with challenging behaviour can prevent community placements breaking down, therefore reducing the need for more expensive inpatient services.

To date there are few studies regarding the applicability of DBT for people with ID/D. Brown et al. (2011) did not include DBT in their review of adapted psychological therapies due to a lack of published research. A systematic review of mindfulness-based interventions for people with ID/D (Chapman et al., 2013) also excluded evaluations of DBT, and another only included two studies that considered DBT (Hwang & Kearney, 2013).

The published research to date regarding DBT for people with ID/D is of poor design, and lacks features such as control groups, blinded allocation to groups, independent researchers and measures of adherence to treatment protocols. In the available research Charlton and Dykstra (2011) reported improvements following adapted DBT for adolescents with ID/D and behavioural needs. Three studies reported improvements for adults with ID/D who received DBT in community services (Brown et al., 2013; Hall et al., 2013; Lew et al., 2006), and three studies reported positive outcomes regarding adapted DBT for adults with ID/D who
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received forensic services (Morrissey & Ingamells, 2011; Sakdalan & Collier, 2012; Sakdalan et al., 2010). A systematic review concluded that the available research was of poor quality and had small sample sizes (McNair, 2014).

Current Study

The current study aims to contribute to the emerging evidence base by reporting changes on validated measures of depression, anxiety and anger amongst individuals with ID/D who received adapted DBT within a community psychological therapies service. The study will also report outcomes on a measure of mindfulness skills; one of the principal components of DBT.

Hypotheses

There will be improvements in outcomes for participants with ID/D following adapted DBT, as measured by validated psychometrics. Improvements will consist of:

- Reductions in scores on the Glasgow Depression Scale (GDS) (Cuthill et al., 2003).
- Reductions in scores on the Glasgow Anxiety Scale (GAS) (Mindham & Espie, 2003).
- Increased scores on the Cognitive Affective Mindfulness Scale- Revised (CAMS-R) (Feldman et al., 2007).
DBT for Adults with Intellectual Disabilities

Methodology

Ethical Approval

The study was approved by the NHS North West Research Ethics Committee, University of Manchester School of Psychological Sciences Ethics Committee and the 5 Boroughs Partnership NHS Foundation Trust Research and Design department (Appendix 3).

Intervention

Participants all received DBT from DBT-trained Clinical Psychologists. The DBT programme was based on Linehan (1993a), but had been adapted in order to make it suitable for adults with ID/D. The programme used simplified language and concepts in order to make it more accessible, with the group skills programme only focusing on one new skill each week. Adaptations also included the use of pictorial handouts for each of the skills that are learnt within the group skills programme, and the use of pictorial diary sheets for monitoring target behaviours. Clients were also given CDs with audio guides to help with mindfulness and relaxation practice at home.

The DBT programme lasted for six months and consisted of weekly group DBT skills-training and weekly individual therapy. Clients had access to DBT facilitators via telephone during office hours. Therapists attended a weekly DBT consult as described by Linehan (1993a). Clients were permitted to repeat the DBT skills group if this was considered helpful, and this was consistent with the model proposed by Linehan (1993a).
DBT for Adults with Intellectual Disabilities

Sample and Recruitment

Psychometric data was available for 18 clients who had participated in the DBT programme provided by the Learning Disabilities Specialist Psychological Therapy Service at 5 Boroughs Partnership NHS Foundation Trust over a three-year period. This data was collected routinely as part of the assessment and evaluation of the intervention.

The DBT programme’s inclusion criteria were adults that have an ID/D and present with difficulties related to emotional regulation, managing crisis and interpersonal effectiveness. The programme was open to both females and males. Participants were referred to the DBT programme from a variety of sources including social services, other health professionals and clinicians within the Specialist Psychological Therapy Service. Reasons for referral typically included difficulties identified with self-harm, parasuicidal behaviours, use of alcohol and substances as a coping strategy, anger and aggression, and relationship difficulties. Following referral participants were initially assessed by DBT therapists to determine whether they would be suitable for the DBT programme, any work required to prepare participants for DBT was completed, in line with the pre-treatment phase of the DBT model, and the psychometric measures were administered.

Clients were not included in the DBT programme if clinicians consider that a group therapy would not be appropriate; for example if clients had significant communication difficulties.
Design

The study used a within-subjects design comparing changes in psychometrics prior to, and following, DBT.

Materials and Procedure

Psychometrics were routinely administered by clinical psychologists during individual DBT sessions. They were completed prior to DBT, and repeated upon completion.

Glasgow Depression Scale (GDS) (Cuthill et al., 2003)

The Glasgow Depression Scale (GDS) (Cuthill et al., 2003) is a 20-item self-report questionnaire that measures depressive symptoms over the previous week. Each item is scored on a 3-point scale (0=Never/no, 1=Sometimes, 2=Always/a lot), and a score of 13 or higher indicates depression. The GDS was developed and validated for use with adults with ID/D.

Glasgow Anxiety Scale (GAS) (Mindham & Espie, 2003)

The Glasgow Anxiety Scale (GAS) (Mindham & Espie, 2003) is a 27-item self-report questionnaire that measures state anxiety, and has been validated by the authors for use with adults with ID/D. Each item is scored on a 3-point scale (0=Never/no, 1=Sometimes, 2=Always/a lot), and a score of 13 or higher indicates anxiety.

Novaco Anger Scale (Northgate Modification) (NAS) (Novaco & Taylor, 2004)

The Novaco Anger Scale – Northgate Version (NAS) (Novaco & Taylor, 2004) is a 60-item self-report measure that considers individuals’ disposition to anger. Each
item is scored on a 3-point scale (1=Never True to 3=Always True). A high score on the NAS is indicative of higher levels of anger. The NAS has been demonstrated to have good validity for use with people with ID/D (Novaco & Taylor, 2004).

*Cognitive Affective Mindfulness Scale- Revised (CAMS-R) (Feldman et al., 2007)*

The Cognitive Affective Mindfulness Scale- Revised (CAMS-R) (Feldman et al., 2007) is a 12-item self-report measure of the individual’s ability to be mindful. Each item is scored on a 4-point scale (1=Rarely/ Not at all, 2=Sometimes, 3=Often, 4=Almost Always). A high score on the CAMS-R represents high levels of mindfulness. To date this measure has not been validated for use with adults with ID/D, but has been validated by the authors in the general population.

**Results**

Data was collected from 18 participants (male=6, female=12), mean age=32.65 years (SD=10.49) and analysed using Statistical Package for the Social Sciences (SPSS) version 20.0. Post hoc effect sizes were calculated using G*Power version 3.1.9.2 (Faul et al., 2007).

A summary of the descriptive statistics for all measures are presented in Table 4. Pre-group results represent the scores taken for each participant during their initial assessment for DBT. Post-group results represent the scores for each participant at the point of discharge from DBT. Results are reported separately for participants who were discharged after completing the DBT skills group once (n=12), and those who completed it twice (n=6) in addition to combined results (n=18) taken at each individual’s assessment and discharge from DBT. There were no significant differences between the groups on any of the pre-intervention measures. All GDS,
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GAS and CAMS-R data in each subgroup met the assumptions for parametric analysis. The NAS data was not normally distributed for each subgroup, and was therefore analysed using non-parametric tests.

A 2 x 2 (time x no. of interventions) mixed design ANOVA found a main effect of time on the GDS (F(1,15)=11.96, p=0.004, d=0.79). There was no significant main effect of number of group interventions (F(1,15)=0.00, p=0.958). There was no significant interaction between number of group interventions and time (F(1,15)=0.61, p=0.446).

A 2 x 2 (time x no. of group interventions) mixed design ANOVA found a main effect of time on the GAS (F(1,15)=18.11, p=0.001, d=0.80). There was no significant main effect of number of group interventions (F(1,15)=0.62, p=0.444). There was a significant interaction between number of group interventions and time (F(1,15)=5.41, p=0.034). This is shown in Figure 2.

A Wilcoxon signed-rank test found a significant reduction on the NAS for all participants over time (Z=-2.245, p=0.025). There was not a significant reduction when data was analysed separately for participants who had completed the DBT group skills once (Z=-1.895, p=0.058) or twice (Z=-1.342, p=0.180). A Mann-Whitney U test found no significant differences between the groups according to number of interventions before DBT (U=7,500, p=0.606) or following DBT (U=5,500, p=0.533).
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A 2 x 2 (time x no. of group interventions) mixed design ANOVA found a significant main effect of time on the CAMS-R (F(1,16)=12.67, p=0.003, d=0.63). There was no significant main effect of number of group interventions (F(1,16)=1.24, p=0.283). There was a significant interaction between number of group interventions and time (F(1,16)=5.13, p=0.038). This is shown in Figure 3.

[Figure 3 here]

Discussion

Main Findings

The findings show that there were overall improvements on symptom measures and mindfulness skills following adapted DBT for adults with ID/D.

Reductions in depression

The results show that there was a significant reduction in depression, as measured by the GDS, following DBT. The mean score prior to DBT fell within the clinical range, and following DBT fell within the non-clinical range suggesting that participants were no longer experiencing depression. The improvements were not significantly affected by the number of times participants completed the DBT skills group.

Reductions in anxiety

There was a significant reduction in the levels of anxiety experienced by participants, as measured by the GAS, however this remained within the clinical range following completion of the DBT skills group. There was not an overall significant effect of the number of times participants had completed the DBT skills
group, however there was a significant interaction between completion of DBT with the number of group interventions received; with participants who completed the DBT skills group more than once having greater reductions in their GAS scores.

*Reductions in anger*

There was a significant reduction in anger, as measured by the NAS, following DBT. This reduction was not significant when analysed separately for participants who had completed the group once or twice, and this is likely to be due to the small number of participants who completed the measure.

*Increases in mindfulness skills*

Participants had significantly improved mindfulness skills, as measured by the CAMS-R, following DBT. Whilst there was no significant main effect of participants completing the DBT skills group more than once; those that did the group twice had significantly greater improvements in their mindfulness skills following completion of the intervention.

The improvements in measures of symptoms are consistent with those found by Morrissey and Ingamells (2011) in their adapted DBT programme, and are also consistent with research regarding DBT in the wider population (Evershed et al., 2003; Gratz et al., 2005; Harley et al., 2008).

*Limitations*

To date only a small number of participants have completed the DBT programme, and therefore the evaluation would be strengthened by an increased sample size. Despite this, the effect sizes produced from the available data are promising. The findings of the research are limited by the lack of a robust research design including
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a control group, blinding of researchers to group allocations and measures of treatment fidelity. Data is not reported regarding clients who disengaged from DBT, and it is not known whether these clients are homogeneous with those who engage successfully.

The study focuses on psychometric measures of symptom change. A limitation of the study is that it does not report any measures of behavioural changes, for example incidents of self-harm, violence or impulsive behaviour as linked to each client’s referral. Therefore, it is difficult to conclude that the changes made by participants are meaningful and of clinical validity.

The study considers a measure of mindfulness skills following DBT. Another limitation is that the study does not measure improvements in skills on the remaining modules of DBT; interpersonal effectiveness, emotional regulation and distress tolerance. Measures of these skills would demonstrate that the DBT programme successfully targets these areas.

The DBT programme is a six-month multi-modal treatment, and the results do not provide an indication regarding which components of the DBT programme are attributable to the changes that are observed. It is unknown to what extent the intervention adhered to the principals of DBT. It is also unknown whether clients were receiving any additional treatments concurrent with DBT or had a change of circumstances that could be associated with positive outcomes. Comparisons with a matched control group would allow further conclusions to be drawn regarding the impact of DBT. The study does not consider wider aspects of each individual’s presentation, for example their level of functioning, specific diagnoses or presenting problems, or social circumstances, therefore it is not possible to conclude which
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individuals are most likely to benefit from DBT, or conversely, which clients are most likely to disengage from DBT.

Clinical Implications

The results show that adapted DBT is an effective treatment for adults with ID/D, and the results indicated that it leads to improvements in depression, anxiety and anger. Although there was no overall difference between clients who completed the DBT skills group once or twice, reductions in anxiety were greater for those who completed it twice. It is of note that both groups of clients who had completed the DBT programme continued to have anxiety levels within the clinical range, and therefore specific interventions to target this may be appropriate following completion of DBT.

DBT also appeared to be successful in teaching clients mindfulness skills. Participants who completed the DBT group skills twice also had greater improvements in mindfulness skills, suggesting that the repetition of the skills group helped consolidate their knowledge further.

Research Implications

Future research should explore the efficacy of adapted DBT for adults with ID/D using a more robust research design including larger sample sizes, control groups and measures of adherence to the model by therapists. Comparisons could be made with individuals who receive only aspects of the programme in order to explore whether any specific elements are attributable to changes.

The current study measures mindfulness skills, suggesting that this module of DBT is effectively provided. However, future research could further this by also
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measuring skills in emotional regulation, interpersonal effectiveness and distress tolerance. Research could also focus on outcomes regarding the presenting difficulties that clients are referred for to explore whether DBT successfully targets these, for example, measuring reductions in self-harm behaviours.

Consideration should also be given regarding specific groups of individuals with ID/D who would benefit from DBT, for example those with specific presenting problems or diagnoses. The majority of the research to date does not consider this, with the exception of a few studies considering the needs of adults with ID/D who present with offending behaviours. Comparisons could also be made to the outcomes of individuals without ID/D to explore any differences and whether any aspects of the DBT programme require further adaptation to be suitable.
References


difficult to engage offenders. *Australasian Journal of Correctional Staff Development, 7*(1), 1-12.


### Table 4: Pre and Post-intervention results for participants who completed the DBT skills group once and twice, and combined results for all participants

<table>
<thead>
<tr>
<th></th>
<th>Completed DBT once</th>
<th>Completed DBT twice</th>
<th>All participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-group Mean (SD)</td>
<td>Post-group Mean (SD)</td>
<td>Pre-group Mean (SD)</td>
</tr>
<tr>
<td><strong>GDS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17.45 (9.21)</td>
<td>12.09 (6.05)</td>
<td>18.83 (8.03)</td>
</tr>
<tr>
<td></td>
<td>(N=11)</td>
<td>(N=11)</td>
<td>(N=6)</td>
</tr>
<tr>
<td><strong>GAS</strong></td>
<td>27.36 (7.90)</td>
<td>23.45 (9.15)</td>
<td>34.83 (6.67)</td>
</tr>
<tr>
<td></td>
<td>(N=11)</td>
<td>(N=11)</td>
<td>(N=6)</td>
</tr>
<tr>
<td><strong>CAMS-R</strong></td>
<td>26.25 (5.80)</td>
<td>28.58 (7.20)</td>
<td>24.83 (2.23)</td>
</tr>
<tr>
<td></td>
<td>(N=12)</td>
<td>(N=12)</td>
<td>(N=6)</td>
</tr>
<tr>
<td><strong>NAS</strong></td>
<td>102.50 (91.75-116.25)</td>
<td>95.50 (81.25-98.75)</td>
<td>105 (103-107)</td>
</tr>
<tr>
<td></td>
<td>(N=8)</td>
<td>(N=8)</td>
<td>(N=2)</td>
</tr>
</tbody>
</table>
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Figure 2: Means of the GAS pre- and post-intervention for participants who had completed the DBT skills group once and twice
Figure 3: Means of the CAMS-R pre- and post-intervention for participants who had completed DBT skills group once and twice
Paper 2b: Alterations in Personal Constructs following Dialectical Behaviour Therapy (DBT) for Adults with Intellectual Disabilities

Prepared in accordance with author guidelines for Clinical Psychology and Psychotherapy (see Appendix 4)

Word count: 5,442
Abstract

Dialectical Behaviour Therapy (DBT) is recommended for the treatment of Borderline Personality Disorder (BPD). There is evidence that psychological interventions can be successfully adapted for the needs of individuals with intellectual and developmental disabilities (ID/D), however little research has been conducted regarding DBT for people with ID/D. Repertory grid methodology, based on Personal Construct Theory (PCT), provides a structured tool to gain understanding of how individuals perceive themselves and others. There is evidence that suggests that this personal construing is related to self-esteem, cognitive complexity and psychological distress, and is influenced by factors including a history of trauma. Construing can change following therapeutic interventions, and repertory grids can be used as an outcome measure. Previous studies have successfully used repertory grids with individuals with ID/D.

The current study explores changes in personal construing, as measured using repertory grids, following DBT for seven adults with ID/D. Two participants disengaged from therapy; however the outcomes for the remaining five are reported. Following DBT there was evidence that personal construing had changed, and of improvements in self-esteem. There was no evidence that participants had altered tightness of construing. Three participants had resolved dilemmas in their construing following DBT, however one participant developed new dilemmas. Both participants who disengaged had implicative dilemmas, suggesting that they may have found some changes threatening to their sense of self. The study demonstrates that repertory grids can successfully capture psychological change in adults with ID/D who complete DBT.
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**Key Practitioner Message**

- Adapted DBT can be successfully delivered to adults who have ID/D in community services.
- Adults with ID/D have increased self-esteem following adapted DBT.
- Repertory grids can be used to measure psychological changes in adults with ID/D.

**Keywords:** Dialectical Behaviour Therapy; DBT; repertory grid; personal construct theory; intellectual disabilities; learning disabilities

**Introduction**

*Dialectical Behaviour Therapy (DBT)*

Borderline Personality Disorder (BPD) is defined by DSM V (American Psychiatric Association, 2013) as ‘a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity and present in a variety of contexts’. BPD is associated with increased risk of suicide (Black, Blum, Pföhl, & Hale, 2004), self-harm (Shearer, 1994) and violence to others (Stepp et al., 2012). BPD has been found to correlate with experiences of trauma (Westphal et al., 2013), and most notably, childhood sexual abuse (Hong, Ilardi, & Lishner, 2011).

Linehan (1993a) identified that individuals presenting with parasuicidal behaviours had typically poor outcomes, and developed Dialectical Behaviour Therapy (DBT) to target this client group. The therapy was later adapted for use with people with BPD. DBT is an integrative treatment model based upon cognitive and behavioural approaches, incorporating elements of Eastern philosophy. It targets idiosyncratic behaviours which are prioritised in a hierarchical order; life-interfering behaviours...
(self or others), therapy-interfering behaviours, DSM-IV Axis I disorders (American Psychiatric Association, 1994) and quality of life issues. The treatment model proposed by Linehan (1993a) is multi-modal and includes individual therapy, groups skills training, telephone support and a staff consultation team. The groups skills training includes modules in emotional regulation, interpersonal effectiveness, distress tolerance and mindfulness (Linehan, 1993b). Individual sessions typically focus on clients’ recent behaviours, and this is supported through the use of diary cards. Behavioural analyses of recent incidents are conducted, with the client and therapist identifying alternative solutions. Telephone support is available on a 24-hour basis to help clients apply their coping skills in crises, and staff consultations ensure that therapists provide effective treatment and remain motivated.

Initial randomised clinical trials demonstrated that DBT leads to reductions in frequency and severity of parasuicidal behaviours, less therapy attrition, reduced psychiatric admissions and improvements in measures of adjustment and anger for individuals with BPD compared to treatment-as-usual (Linehan, Heard, & Armstrong, 1993; Linehan, Tutek, Heard, & Armstrong, 1994). A recent meta-analysis has shown that DBT is effective in reducing suicidal and self-injurious behaviours for individuals with BPD (Kliem, 2010), and it is currently recommended for the treatment of BPD (National Institute for Health and Clinical Excellence, 2009). DBT has also been demonstrated to be effective for a range of problems including substance misuse (Linehan et al., 1999), trichotillomania (Ferguson, Jenkin, Hollero, & Burns, 2013), offending behaviours (Evershed et al., 2003; Safer, Telch, & Agras, 2001; Telch, Agras, & Linehan, 2001), anger (Keuthen et al., 2011) and eating disorders (Rosenfeld et al., 2007; Sampl, Wakai, & Trestman, 2010). It
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has also been successfully adapted for use with adolescents (James, Taylor, Winmill, & Alfoadari, 2008; Nelson-Gray et al., 2006; Rathus & Miller, 2002).

**Psychological Therapies for People with ID/D**

Giraud-Saunders (2011) estimated that between 25-40% of individuals with ID/D have additional mental health needs. Alexander and Cooray (2003) reviewed the prevalence of personality disorder in individuals with ID/D, but concluded that it was impossible to estimate due to findings ranging from 1-91% in community settings, although the prevalence is thought to be higher than in the general population (Pridding & Procter, 2008).

Recent government reports have emphasised that people with ID/D should have access to the same range of mental health services as the general population, and that improvements need to be made in adapting services to their needs (Department of Health, 2010; Prince et al., 2007). A review of psychological therapies available to people with ID/D identified that psychodynamic psychotherapy, cognitive-behavioural therapy, counselling and systemic family therapy can be successfully adapted (Brown, Duff, Karatzias, & Horsburgh, 2011), but the review excluded DBT due to a lack of published research. Similarly, Chapman et al. (2013) excluded evaluations of DBT in their systematic review of mindfulness-based interventions for people with ID/D.

**DBT for People with ID/D**

There is little published research regarding the suitability and efficacy of DBT for people with ID/D, although a systematic review of the available literature has been undertaken (McNair, 2014). The available research suggests that DBT can be
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successfully adapted for adolescents and adults within community and forensic services, with improvements in measures of psychological distress and risk behaviours.

**Personal Construct Theory (PCT)**

Personal Construct Theory (PCT) was developed by Kelly (1955). It proposes that individuals have idiosyncratic realities of the world based on their specific experiences. Construing is a dynamic process of applying meaning to our experiences by producing ‘elements’ (e.g. events, objects, individuals) which can be seen as being similar or different. Through this process individuals develop dichotomous ‘constructs’ that allow elements to be categorised as similar (at the emergent pole) or different (at the implicit pole). Future predictions can be based on this meaning, and construing adjusted as necessary in light of new information and experiences. Kelly (1955, p. 831) defined psychological disorder as ‘*any personal construction which is used repeatedly in spite of consistent invalidation*’. PCT acknowledges that individuals are unlikely to be consciously aware of how they construe information (Ravenette, 1999), and therefore techniques including repertory grids are used to elicit this information in a structured way that can be analysed mathematically (Kelly, 1955). Cognitive complexity can be derived from repertory grid data by calculating the percentage of variance accounted for by the first component using principal components analysis (PCA) (Sperlinger, 1976; Winter, 2003).

**Personal Construct Theory and Psychological Distress**

PCT considers how individuals construe the ‘self’; Bannister (1983) proposed that this is construed from an individuals’ understanding of how others construe them.
Differences in construing between ‘self’ and ‘ideal self’, as measured by standardised element Euclidean distances, are considered to be predictive of self-esteem and psychological distress (Ribeiro et al., 2012). The standardised element Euclidean distance between any two elements is expected to be 1, with a difference of greater than 1.5 indicating that they are very different, and a difference of less than 0.5 indicating similarity (Winter, 1992a). Low self-esteem has been defined as a distance of greater than 1.07 between the self and the ideal self, medium self-esteem as 0.68-1.07 and high self-esteem as less than 0.68 (Böker et al., 2000). Böker et al. (2000) found that patients with a long history of mental health difficulties were more likely to have low self-esteem.

Repertory grids can also be used to measure tightness of construing, as measured by either the level of variance accounted for by the first component in a PCA or by the sum of the square of the correlations between constructs (Winter, 2003). Individuals with a tight construct system are expected to have rigid predictions about their experiences, compared to those with less rigid construing who are more able to generate alternative predictions for understanding their experiences (Neimeyer & Neimeyer, 1987). Individuals with tight construct systems will be more confident in their predictions, as they are less aware of alternatives, however this increases the chance that they will experience invalidation as their predictions may be incorrect. It has been proposed that psychological distress is linked to tighter construing (Feixas-Viaplana, Cipriano, & Dominguez, 2007).

Implicative dilemmas can also be extracted from repertory grid data and occur when the interrelationship between constructs mean that a positive change on the ‘discrepant element’ (where a self-ideal self discrepancy occurs) would also be associated with an undesired change on the ‘congruent element’ (where there is not a
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self-ideal self discrepancy). It has been reported that individuals in a clinical sample are significantly more likely to have implicative dilemmas than those in a non-clinical control group (Feixas & Saúl, 2005; Feixas, Saúl, & Ávila-Espada, 2009), and their presence has been associated with increased symptom severity (Badzinski & Anderson, 2012; Feixas et al., 2009) and increased levels of guilt (Winter, 1983).

*Personal Construct Theory and Trauma/Borderline Personality Disorder*

De Bonis et al. (1998) used repertory grids to explore the construing of individuals with co-morbid diagnoses of BPD and depression, in comparison to non-clinical and depression control groups. They reported that both clinical groups with depression had negative views of the self, however participants with BPD also had a more extreme construing of others. This was consistent with the findings of Benjamin and Wonderlich (1994), that individuals with BPD had more hostile perceptions of others than other clinical groups. Self-harm has been associated with disorganised construing (Hughes & Neimeyer, 1993).

A history of trauma has been linked to a discrepancy between how individuals’ construe their self and ideal self; Freshwater, Leach, and Aldridge (2001) reported that individuals who have experienced childhood sexual abuse have low self-esteem and larger self to ideal self discrepancies than control participants who have not experienced trauma. Pollock (1996) investigated women who had experienced childhood sexual abuse who committed violent offences. He reported that the women scored clinically significant scores for BPD on the MCMI-II (Millon, 1987) and found a mean standardised element Euclidean distance between the self and ideal self of 1.65.
There is mixed evidence regarding the relationship between tightness of construing and experiences of trauma, with Sewell et al. (1996) reporting that trauma is associated tighter construing, but this was not replicated by Erbes and Harter (1999).

**Repertory Grids as a Measure of Change**

Given the evidence that discrepancies in the relationship between the self and ideal self are indicative of psychological distress, and that such discrepancies are primarily stable (Feixas et al., 1992), several studies have used this as an indicator of change following interventions (Winter, 1992b). Winter (2003) found that two-thirds of repertory grid studies reported a reduction in this discrepancy following successful interventions. Several group interventions have been effective in reducing this discrepancy (Catina & Tschuschke, 1993; Neimeyer, Heath, & Strauss, 1985). Winter et al. (2007) reviewed the efficacy of personal construct therapy for self-harm, and found that the mean self to ideal self discrepancy reduced from 1.08 to 0.64, indicating an increase in self-esteem.

Kelly (1955) proposed that psychological change occurs via the process of tightening and loosening constructs and that individuals with tight construal may be threatened by the idea of psychological change via reconstructing, as this would require altering their core constructs. Tight construing has been linked to poor outcomes in several group therapies (Morris, 1987; Orford, 1974; Winter, 1983). The resolution of implicative dilemmas has also been considered as an outcome of therapy. Feixas and Saúl (2005) found a statistically significant reduction in implicative dilemmas after therapy, a finding confirmed by Winter (2003).
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Personal Construct Theory and ID/D

Repertory grids have previously been used with people with ID/D. Hare (1997) described how repertory grids were used with a woman with moderate ID/D using visual aids including passport photographs. Hare, Searson, and Knowles (2011) argue that repertory grids provide a way of exploring the idiosyncratic ways in which people with ID/D understand the world without placing an emphasis on pathology. They reported two case studies of adults with ID/D and found a large discrepancy between self and ideal self in both cases, indicating low self-esteem.

Skene (1991) used repertory grids to explore change following group psychotherapy for adults with ID/D who presented with ‘disturbed behaviour’ and found that they captured changes in how individuals related to themselves and their families. Mason (2008) used repertory grids as a tool for measuring change in two offenders with ID/D who received psychological treatment for alcohol difficulties. In the first case study, Mason (2008) reported that following therapy, the participant had a ‘loosening of construing’, as measured by reductions in the intensity of construing, and the percentage accounted for by the first two primary components. In the second case, Mason (2008) reports that the individual developed a more positive concept of the self following therapy.

Current Study

To date no research regarding DBT for adults with ID/D has considered the psychological changes that occur. The current study aims to explore the personal construing of adults with ID/D accessing DBT within a community psychological therapies services, and investigates whether this construing alters following completion of DBT.
Hypotheses

Hypothesis 1: Alterations in construing

Participants will have altered personal constructs of themselves and others following DBT, as measured using repertory grid analysis. Changes will be demonstrated by the absence of a correlation between pre- and post-intervention repertory grids.

Explorations of changes in the self-self and ideal self-ideal self relationships will be considered.

Hypothesis 2: Improvements in self-esteem

There will be improvements in self-esteem, as measured by reductions in the standardised element Euclidian distance between participants’ construing of the self and ideal self following DBT.

These changes will be explored through reporting of the differential changes within the elements self and ideal self prior to, and following, DBT.

Hypothesis 3: Tightness of construing

Following completion of DBT participants will have changes in tightness of construing, as measured by the variance accounted for by the first component in PCA and the summed square of the correlations between constructs.

Hypothesis 4: Resolution of implicative dilemmas

There will be a reduction in the number of implicative dilemmas in participants’ repertory grids following DBT.
Methodology

Ethical Approval

The study was approved by the NHS North West Research Ethics Committee, University of Manchester School of Psychological Sciences Ethics Committee and the 5 Boroughs Partnership NHS Foundation Trust Research and Design department (Appendix 3).

Intervention

Participants all received DBT from DBT-trained Clinical Psychologists. The DBT programme was based on Linehan (1993a) with adaptations such as the use of visual aids and simplified language and concepts.

The DBT programme lasted for six months and consisted of weekly group DBT skills-training and individual therapy. Clients had access to DBT facilitators via telephone during office hours. Therapists attended a weekly DBT consult as described by Linehan (1993a). Clients were permitted to repeat the DBT skills group if this was considered helpful, and this was consistent with the model proposed by Linehan (1993a).

Sample and Recruitment

All clients who were offered a place in the DBT programme provided by the Learning Disabilities Specialist Psychological Therapy Service at 5 Boroughs Partnership NHS Foundation Trust over a twelve month period were invited to take part in the study via their Clinical Psychologist and were given a summary sheet outlining the research (Appendix 5). If they indicated that they were interested, their
Clinical Psychologist arranged an appointment with the researcher who provided further information and answered any questions.

The DBT programme’s inclusion criteria were adults that have an ID/D and present with difficulties relating to emotional regulation, managing crises and interpersonal effectiveness. The programme was open to both females and males. Reasons for referral included problems with self-harm, parasuicidal behaviours and aggression.

Clients were not included in the DBT programme if clinicians considered that a group therapy would not be appropriate (e.g. if clients have significant communication difficulties), but the study did not have any additional exclusion criteria.

Over the recruitment period, eleven participants were considered to be eligible. Of these, nine agreed to meet with the researcher; however two were discharged from DBT before this meeting could occur. The remaining seven completed the research; of these, two participants disengaged from DBT, however their pre-intervention results are reported.

**Capacity and Consent**

In accordance with current legislation (Department of Health, 2005), participants were assumed to have capacity. As part of the consent procedures the researcher ensured that the study was explained in accessible language and participants had the opportunity to ask questions. If they agreed, participants were given further information about the study and were asked to sign a consent form (Appendix 6). It was explained to participants that if they lost capacity during the course of the
research they would be withdrawn from the research, but data collected to date would be retained.

**Design**

The study used a within-subjects design to consider changes in personal construing using repertory grids, as well as considering the qualitative data extracted from this methodology.

**Materials and Procedure**

**Repertory Grids**

Repertory grids are a structured interview based on PCT (Kelly, 1955). Participants completed a repertory grid with the researcher prior to, and following, completion of DBT.

The initial repertory grids were completed by asking participants to identify elements. Self and ideal self were prescribed elements with the remaining elements identified by the participant as individuals who were important to them. Elements were recorded on individual pieces of paper. Participants each identified 8-12 elements (mean=9.57). Constructs were developed using dyadic elicitation; participants were asked whether two arbitrarily selected elements were similar or different, and how. If a similarity was identified, participants were asked what the opposite of the construct would be, and which ends of the construct pair were positive and negative. If differences were identified the participant was asked to clarify which were positive and negative. Constructs were recorded using the participants’ language on individual pieces of paper. Participants were asked to give behavioural examples of their statements to clarify their understanding of the
constructs (Hare, 1997). Participants were asked to rank each of the elements according to the construct pair. Responses were recorded on a response sheet (Appendix 7). Construct elicitation was repeated using dyadic elicitation until participants were unable to identify novel construct pairs. The researcher noted down relevant comments that participants made about their repertory grids throughout the process.

Following completion of DBT, participants met with the researcher and completed a second repertory grid. Participants were supplied with the elements and constructs elicited by the initial repertory grid. Participants were asked to rank the elements for each construct pair, and their responses were recorded.

**Statistical Analyses**

*Repertory Grid Data analysis*

Repertory grid data were analysed using Idiogrid version 2.4 (Grice, 2002) to produce a Slater (1977) analysis. Idiogrid analyses were recorded in the Statistical Package for the Social Sciences (SPSS) (Statistical Package for the Social Sciences, 2011) for the purpose of computing descriptive statistics.

*Self-Ideal self discrepancy*

Standardised element Euclidean distances between the self and ideal self were computed for each participant’s repertory grids before and after DBT. This distance between these elements indicates how similar the participant perceives their self to be to their ideal self, and can be used to represent self-esteem (Böker et al., 2000). Comparisons between the pre- and post- self-ideal self discrepancies was calculated in SPSS (Statistical Package for the Social Sciences, 2011).
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**Tightness of Construing**

A PCA was produced using Idiogrid analysis; this calculated the variance within the repertory grid accounted for by each dimension produced by the elements and constructs. The percentage of variance accounted for by the first and second factors can be used to indicate the multi-dimensionality of an individual’s construing, and the percentage variance accounted for by the first factor can be used to indicate tightness of construing (Winter, 1992a). The first and second components were also used to produce a two-dimensional ‘pingrid’ that visually represents the relationships between the participants’ elements and constructs for each repertory grid (Jankowicz, 2003; Winter, 1992a).

The sum of the squares of the correlations between the client’s constructs prior to, and following, DBT was also derived. This can also be used to indicate tightness of construing, with a higher score indicating rigid construing (Winter, 2003).

Changes in individual’s tightness of construing between pre- and post-intervention grids were calculated in SPSS (Statistical Package for the Social Sciences, 2011). Comparisons of tightness of construing between grids of different participants were not possible as the repertory grids were not standardised (Bell, 2004).

**Implicative Dilemmas**

An Implicative Dilemma analysis was conducted on self and ideal self elements. A discrepant construct is considered to exist where there is a difference between the self and the ideal self, compared to a congruent construct where they are rated similarly (Feixas & Saúl, 2005). An implicative dilemma is where a change on a discrepant construct is associated with an undesired change on a congruent construct.
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rating. Feixas and Saúl (2005) define an implicative dilemma as being a correlation of greater than 0.20 between the discrepant and congruent constructs.

*The Slater Analysis: Two Grids (Slater, 1977)*

The Slater Analysis: Two Grids (Slater, 1977) was used to compare each individual’s repertory grids prior to, and following, DBT. The overall correlation between each participant’s pre- and post-DBT grids was produced. Correlations were also produced for elements prior to, and following, DBT. The Slater analysis also calculated the differential changes for each element.

Mean correlations and differential changes were calculated in SPSS (Statistical Package for the Social Sciences, 2011).

**Results**

Data was collected from seven participants (female=4, male=3), mean age=30.63 years (SD=10.86). Two participants disengaged from DBT within two weeks of the programme. Of the remaining five clients, the median skills groups attended was 55% (17%-100%), and the median number of individual sessions was 14.50 (10-22). Two participants (D and F) attended less than 50% of DBT skills groups, but completed the DBT programme.

**Hypothesis 1: Alterations in construing**

Table 5 reports the overall correlation between repertory grids prior to, and following, DBT for each participant. The mean correlation was 0.63 (range 0.51-0.80), indicating a moderate relationship between the elements, indicating that there had been some changes in construing. There were no correlations between the self-
Personal Construing in DBT for Adults with ID/D

self and ideal self-ideal self elements prior to, and following, DBT, indicating that the construing of these elements had changed significantly over the course of DBT.

[Table 5 here]

**Hypothesis 2: Improvements in self-esteem**

Changes in the standardised element Euclidean distance between self and ideal self (representing self-esteem) are reported in Table 6. Prior to DBT, the mean standardised element Euclidean distance was 1.11 (SD=0.23), and following DBT this was 0.93 (SD=0.45). Prior to DBT, six participants were noted to have low self-esteem (Böker et al., 2000) and, of the five participants who completed DBT, three showed improvements in self-esteem. The two participants who did not show improvements in self-esteem both had attendance of less than 50% at DBT skills groups.

[Table 6 here]

Table 7 shows the mean differential changes of the elements self and ideal self following DBT. Of the five participants who completed DBT, four demonstrated more change within the element self than ideal self. The mean differential changes are presented in Figure 4. The two participants who attended less than 50% of the groups had the smallest amount of change in their construal of the self.

[Table 7 here]

[Figure 4 here]

**Hypothesis 3: Tightness of construing and outcomes**

Changes in tightness of construing, as measured by the sum of squares of correlations between constructs before and after DBT, are presented in Table 8. Of
those five participants who completed DBT, the mean sum of squares prior to DBT was 580.40 (SD=343.80), and following DBT it was 577.78 (SD=348.74).

[Table 8 here]

The loadings on the first and second components following PCA are shown in Figure 5. The results do not suggest an overall trend in altered loadings on the principal components.

[Figure 5 here]

**Hypothesis 4: Resolution of implicative dilemmas**

The number of implicative dilemmas for each participant at each time point is shown in Table 9. The percentage reported indicates the proportion of construct relationships that are considered to be implicative dilemmas. Prior to DBT, four participants were found to have implicative dilemmas; of these, two participants disengaged from therapy and two resolved their dilemmas. One participant developed new implicative dilemmas following DBT.

[Table 9 here]

**Discussion**

**Main Findings**

The results show that individuals with ID/D were able to successfully engage with the process of completing repertory grids, and that this methodology captured idiosyncratic changes in their personal construing following adapted DBT. It is not possible to infer that these changes were solely due to engagement with DBT, due to the lack of robust research design including the absence of a control group.
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Alterations in construing

The results show that there were overall changes in personal construing following DBT, as measured by correlations between pre- and post-intervention repertory grids. Previous research has demonstrated that construing is generally static over time without intervention (Feixas et al., 1992), and therefore it can be inferred that psychological changes have occurred during DBT. Overall there was little correlation between individual’s construing of their self-self and ideal self-ideal self, indicating that changes in the construing of these elements has occurred.

Improvements in self-esteem

The results show an overall trend in the reduction of the standardised element Euclidian distance between the self and ideal self. Previous research has found that a reduction towards the ideal self is indicative of self-esteem, and that it is largely unchanged without intervention (Böker et al., 2000). The two participants who did not have improvements in self-esteem both had low attendance at the DBT skills group.

The findings support the research of Winter (2003) that proposed that the self to ideal self standardised Euclidian distance is a suitable measure of psychological change within repertory grid research, and that group interventions can be effective in targeting this (Catina & Tschuschke, 1993; Neimeyer et al., 1985; Winter et al., 2007).

The majority of participants showed greater changes in their construing of their self than compared to their ideal self. This indicates that DBT has encouraged them to alter how they perceive themselves more than their ideal self. This change may be
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due to participants having increased acceptance of themselves, which is one of the prominent themes in DBT.

*Tightness of construing*

The results do not suggest that tightness of construing changed following DBT, as measured by the sum of squares between constructs or loadings on the components following PCA. The results do not support the finding from Button (1980, cited in Fransella, Bell, & Bannister, 2004) that a tightening of construing is associated with positive treatment outcomes following group therapy.

Previous research has linked tighter construing to a history of trauma (Neimeyer & Neimeyer, 1987), distress (Feixas-Viaplana et al., 2007) and poor therapy outcomes (Winter, 1983). However, due to the use of non-standardised repertory grids it was not possible to compare tightness of construing between participants (Bell, 2004).

*Resolution of implicative dilemmas*

The results show that, prior to DBT, four participants had implicative dilemmas. This finding is consistent with previous work that has found that clinical populations are likely to have implicative dilemmas in their personal construing (Feixas & Saúl, 2005; Feixas et al., 2009).

Following completion of DBT two participants had resolved their implicative dilemmas. This is consistent with work by Feixas and Saúl (2005) who reported that less than a third of participants who had implicative dilemmas prior to intervention had them post-intervention. One participant developed new implicative dilemmas following DBT, and this is consistent with a review by Winter (2003) who found that
although implicative dilemmas change in the majority of studies, it is not uncommon for participants to develop new dilemmas.

Both participants who disengaged from DBT had multiple implicative dilemmas. It is possible that in these cases the individuals viewed psychological change as too threatening due to the perceived negative changes to their congruent constructs required to reduce the self-ideal self discrepancy.

Limitations

The study was limited by its small sample size which only allowed for descriptive statistics to be reported. A larger sample would have allowed statistical analyses of the outcomes produced by the repertory grids, and the generalisation of these findings to a wider population. The absence of a matched control group prevents comparisons with individuals who did not receive DBT, and therefore it is difficult to infer that changes were due DBT.

The study did not consider the level of functioning of participants, or whether they had any additional diagnoses; for example, a diagnosis of BPD. Future work could consider this; however it is widely acknowledged that the issue of diagnosing personality disorder in individuals with ID/D is problematic (Alexander & Cooray, 2003; Pridding & Procter, 2008).

The methodology of the study is limited by the use of non-standardised repertory grids between participants, which prevents measures such as tightness of construing being compared (Bell, 2004). However, eliciting idiosyncratic elements and constructs allowed participants to consider changes in construing that were
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individualised and relevant to them, which suggests that the changes that occurred were meaningful to the individual (Fransella et al., 2004).

Clinical Implications

The study shows that adapted DBT for adults with ID/D can result in psychological change that is of relevance to the individuals. Repertory grids may be a useful assessment tool when considering individuals for DBT, particularly as implicative dilemmas can be identified and consideration given to how therapy might impact these dilemmas. Repertory grids are also a useful way of exploring the idiosyncratic changes that occur in personal construing of adults with ID/D following adapted DBT.

Research Implications

The study shows that repertory grids can provide a way of measuring psychological change in adults with ID/D who are engaging in therapy. They provide an individualised measure and an understanding of how changes in personal construing occur. Further research could explore these changes in larger sample sizes, and in conjunction with validated measures.

Future research could explore the personal construing of specific groups of people with ID/D in order to investigate who would benefit most from DBT. Comparisons could be made with individuals who receive other types of therapy in order to draw conclusions about the efficacy of DBT.

Future research could also consider the personal construing of individuals without an ID/D who receive DBT in order to further the understanding of how having ID/D
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influences how individuals perceive themselves and others around them, and to
explore whether the changes that occur during therapy are comparable.
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References


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Table 5: Correlation between Elements

<table>
<thead>
<tr>
<th>Participant</th>
<th>Overall Correlation</th>
<th>Self-Self</th>
<th>Ideal Self-Ideal Self</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>0.51</td>
<td>0.01</td>
<td>0.80</td>
</tr>
<tr>
<td>C</td>
<td>0.80</td>
<td>-0.24</td>
<td>-0.64</td>
</tr>
<tr>
<td>D</td>
<td>0.51</td>
<td>-0.50</td>
<td>-0.46</td>
</tr>
<tr>
<td>E</td>
<td>0.63</td>
<td>0.05</td>
<td>-0.24</td>
</tr>
<tr>
<td>F</td>
<td>0.70</td>
<td>0.23</td>
<td>-0.06</td>
</tr>
<tr>
<td>G</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>0.63 (0.12)</td>
<td>-0.09 (0.28)</td>
<td>-0.12 (0.56)</td>
</tr>
</tbody>
</table>

Table 6: Self-Ideal self Euclidean distance

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre self-ideal self distance</th>
<th>Post self-ideal self distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1.12</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>1.10</td>
<td>0.62</td>
</tr>
<tr>
<td>C</td>
<td>1.30</td>
<td>0.99</td>
</tr>
<tr>
<td>D</td>
<td>1.14</td>
<td>1.43</td>
</tr>
<tr>
<td>E</td>
<td>0.66</td>
<td>0.33</td>
</tr>
<tr>
<td>F</td>
<td>1.11</td>
<td>1.26</td>
</tr>
<tr>
<td>G</td>
<td>1.37</td>
<td>-</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>1.11 (0.23)</td>
<td>0.93 (0.45)</td>
</tr>
</tbody>
</table>

Table 7: Differential changes of elements 'self' and 'ideal self'

<table>
<thead>
<tr>
<th>Participant</th>
<th>Element</th>
<th>Mean change (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Self</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Ideal Self</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>Self</td>
<td>2.50 (3.26)</td>
</tr>
<tr>
<td></td>
<td>Ideal Self</td>
<td>-0.06 (1.43)</td>
</tr>
<tr>
<td>C</td>
<td>Self</td>
<td>0.81 (1.67)</td>
</tr>
<tr>
<td></td>
<td>Ideal Self</td>
<td>-0.63 (1.77)</td>
</tr>
<tr>
<td>D</td>
<td>Self</td>
<td>0.33 (2.66)</td>
</tr>
<tr>
<td></td>
<td>Ideal Self</td>
<td>-0.17 (3.63)</td>
</tr>
<tr>
<td>E</td>
<td>Self</td>
<td>2.07 (1.84)</td>
</tr>
<tr>
<td></td>
<td>Ideal Self</td>
<td>1.07 (1.72)</td>
</tr>
<tr>
<td>F</td>
<td>Self</td>
<td>0.35 (4.81)</td>
</tr>
<tr>
<td></td>
<td>Ideal Self</td>
<td>-1.87 (3.05)</td>
</tr>
<tr>
<td>G</td>
<td>Self</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Ideal Self</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 8: Sum of squares of correlations between constructs prior to, and following, DBT

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre SS</th>
<th>Post SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>651.00</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>861.00</td>
<td>866.00</td>
</tr>
<tr>
<td>C</td>
<td>649.50</td>
<td>653.50</td>
</tr>
<tr>
<td>D</td>
<td>169.00</td>
<td>146.00</td>
</tr>
<tr>
<td>E</td>
<td>281.00</td>
<td>288.50</td>
</tr>
<tr>
<td>F</td>
<td>941.50</td>
<td>934.92</td>
</tr>
<tr>
<td>G</td>
<td>270.50</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 9: Implicative dilemmas at each time point

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre ID no. of dilemmas (%)</th>
<th>Post ID no. of dilemmas (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5 (17.86%)</td>
<td>-</td>
</tr>
<tr>
<td>B</td>
<td>3 (10.71%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>C</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>D</td>
<td>4 (26.67%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>E</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>F</td>
<td>0 (0%)</td>
<td>3 (14.29%)</td>
</tr>
<tr>
<td>G</td>
<td>4 (19.05%)</td>
<td>-</td>
</tr>
</tbody>
</table>
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Figure 4: Mean differential changes of elements 'self' and 'ideal self'

![Figure 4: Mean differential changes of elements 'self' and 'ideal self'](image)

Figure 5: Loadings on first and second components prior to, and following, DBT

![Figure 5: Loadings on first and second components prior to, and following, DBT](image)
Paper 2c: Using repertory grid techniques to measure change following Dialectical Behaviour Therapy with adults with learning disabilities: two case studies

Prepared in accordance with author guidelines for British Journal of Learning Disabilities (see Appendix 8)

Word count: 4,145
Change in repertory grids in DBT: two case studies

Accessible Summary

- Dialectical Behaviour Therapy (DBT) can be adapted for individuals with learning disabilities. DBT aims to teach people how to control their feelings, communicate with other people, manage distress and to be more self-aware.

- This paper presents the case studies of two adults with learning disabilities who completed DBT and shows how their opinions of themselves and others changed.

- The results discussed include overall change in construing, changes in self-esteem and changes in dilemmas they had about themselves before DBT.

Summary

Government strategy indicates that individuals with learning disabilities should have access to adapted psychological therapies, however there is little published research regarding the efficacy of Dialectical Behaviour Therapy (DBT) for adults with learning disabilities, despite it being recommended for the treatment of Borderline Personality Disorder (BPD). The research available primarily focuses on measures of behavioural and psychiatric change, with little emphasis on the psychological changes that occur. Two case studies are presented that use repertory grid technique, based on Personal Construct Psychology (PCP), as a means to develop an understanding of some of the psychological changes that occur within adults with learning disabilities who receive adapted DBT within a community psychology service. The contrasting case studies demonstrate the complexity and idiosyncrasy of the experiences of individuals with learning disabilities who receive DBT, and provides discussion regarding how this information can be integrated into clinical practice.
Change in repertory grids in DBT: two case studies

**Keywords:** Dialectical Behaviour Therapy; DBT; repertory grid; personal construct psychology; intellectual disabilities; learning disabilities

**Introduction**

Dialectical Behaviour Therapy (DBT) was developed for individuals who presented with parasuicidal behaviours, and extended for use with individuals with Borderline Personality Disorder (BPD) by Linehan (1993a). DBT comprises of individual therapy, group skills training, telephone support and a staff consultation team for therapists. The group skills training is supported by the use of a manual (Linehan, 1993b), and includes modules in emotional regulation, interpersonal effectiveness, distress tolerance and mindfulness. Therapy focuses primarily on current behaviours and, in synthesis aims to both validate individuals’ experiences whilst seeking behavioural change.

Randomised clinical trials of DBT have demonstrated that it is effective in reducing the frequency and severity of parasuicidal behaviours, reducing therapy attrition, reducing admissions to psychiatric services, reducing levels of anger, and increasing levels of adjustment in individuals with BPD (Linehan et al., 1993; Linehan et al., 1994). Kliem (2010) conducted a meta-analysis of DBT for individuals with BPD, and concluded that it was effective in reducing suicidal and self-injurious behaviours, and it is recommended for the treatment of BPD (National Institute for Health and Clinical Excellence, 2009). DBT has also been shown to be an effective treatment for a number of other presenting problems including anger (Keuthen et al., 2011), eating disorders (Rosenfeld et al., 2007; Sampl et al., 2010) and offending behaviours (Evershed et al., 2003; Safer et al., 2001; Telch et al., 2001).
Government strategy has emphasised that mental health services should be provided for people with learning disabilities, and that suitable adaptations should be made to those available for the general population (Department of Health, 2010; Prince et al., 2007). A previous systematic review by Brown et al. (2011) found that several psychological therapies have been successfully adapted for adults with learning disabilities, including cognitive-behavioural therapy, psychodynamic psychotherapy, counselling and systemic family therapy, however the authors excluded DBT due to a lack of research. Similarly, Chapman et al. (2013) excluded DBT in their systematic review of mindfulness-based interventions for people with learning disabilities. A systematic review of the available research regarding DBT for individuals with learning disabilities has concluded that it can be successfully adapted (McNair, 2014).

Research regarding the applicability of DBT to people with learning disabilities has, to date, primarily focused on behavioural and psychiatric measures of change, such as incident and symptom reduction. There is an absence of research that has considered the psychological changes that occur. Previous research has reported that individuals with learning disabilities are frequently not listened to by services, and their individualised experiences are overlooked; Hare et al. (2011) proposed that personal construct assessment provides a methodology to overcome this.

Personal Construct Psychology (PCP) (Kelly, 1955) proposes that individuals develop an idiosyncratic perception of the world based on their experiences. Construing is a process of generating ‘elements’ (e.g. individuals, objects, events) that can be described using ‘constructs’ that consider whether elements are similar or different. This construing can be elicited through the use of techniques such as repertory grids. Repertory grids have successfully been used with individuals with
Change in repertory grids in DBT: two case studies

learning disabilities, both as a means of providing further assessment (Hare, 1997; Hare et al., 2011; Mason, 2003), and as a way of measuring individual change (Mason, 2008; Skene, 1991).

Psychological distress has been linked to the extent to which individuals are able to adapt their construing in the light of new information (Feixas-Viaplana et al., 2007). This tightness of construing can be measured using the amount of variance accounted for by the first component in a principal components analysis (PCA) or by the square of the correlations between the constructs (Winter, 2003).

The difference between elements, as measured by the standardised element Euclidian distance, measures the extent to which an individual perceives themselves as similar (<0.5) or different (>0.5) to other elements (Winter, 1992). Previous studies have considered the difference in construing between the self and ideal self generated by repertory grid data; a greater difference between these elements is considered to be representative of low self-esteem and psychological distress (Böker et al., 2000; Ribeiro et al., 2012). Changes in this distance following psychology interventions are commonly reported in studies using repertory grid technique (Winter, 2003).

A further area of interest that can be extracted from repertory grid data is the identification of implicative dilemmas; that is situations where a positive change towards the ideal self on one construct is associated with in an additional undesired change on another construct. Previous research has linked the presence of implicative dilemmas to clinical populations and associated it with increased symptom severity (Badzinski and Anderson, 2012; Feixas et al., 2009), with additional research demonstrating a reduction in implicative dilemmas following therapy (Feixas and Saúl, 2005).
Change in repertory grids in DBT: two case studies

Two case studies are presented in order to explore how construing, as measured by repertory grid technique, alters following adapted DBT for adults with learning disabilities within a community psychology service. Due to the lack of a robust research design, it is not possible to conclude that any changes were attributable to adapted DBT.

**Case Study 1: Sarah**

Sarah was a 22-year old woman with learning disabilities who had been referred for DBT due to her difficulties with self-injury. She was assessed using repertory grid technique prior to commencing DBT. The assessor elicited the elements by asking Sarah to identify individuals who she considered to be important in her life. She then identified constructs using dyadic elicitation, with the assessor asking how pairs of individuals were alike or dissimilar, what the opposite of this construct would be, and which the preferred end of the construct pair was.

A ‘pingrid’ of Sarah’s construing prior to DBT is presented in Figure 6. PCA revealed that her first component accounted for 49.27% of the variance in her construing, with a member of staff and her Dad being the most salient elements. The second component accounted for 24.03% of variance in construing, and her Mum and her hamster were the most salient elements.

[Figure 6 here]

Prior to DBT, the standardised element Euclidean distance between her self and ideal self was 1.10, indicating low self-esteem (Böker et al., 2000). She saw her ideal self as being similar to a member of staff (0.39), but dissimilar from her Dad (1.55). She
also viewed her self as being dissimilar to both the member of staff (1.35) and her Dad (1.63).

Sarah had three implicative dilemmas prior to DBT. She identified ‘gets me out of my bad moods’ vs. ‘puts me in a bad mood’, ‘understanding’ vs. ‘not understanding’ and ‘adventurous’ vs. ‘being a wimp’ as discrepant constructs. Movements to the ideal self on these constructs would result in a undesired shift on the ‘cheeky/funny’ vs. ‘boring’ construct as she acknowledged the limitations of being ‘cheeky/funny’ and rated her ideal self as being closer to ‘boring’. Figure 7 presents how shifts to the ideal self on ‘gets me out of my bad moods’, ‘understanding’ and ‘adventurous’ are correlated with the construct of ‘cheeky/funny’.

Sarah attended 61% of offered skills training groups, and 16 individual sessions as part of DBT. Following these she repeated the repertory grid using the same elements and constructs as previously elicited; the repeated pingrid is shown in Figure 8. PCA showed that there was little change in the cognitive complexity of her construing, with the first component accounting for 50.55% of the variance in her construing. The member of staff continued to be the most salient element; however her Mum also became more salient and her Dad less so. The second component accounted for 19.95% of the variance in construing. The most salient elements changed to each of her cousins.

Following DBT the standardised element Euclidean distance between her self and ideal self reduced to 0.62, indicating high self-esteem (Böker et al., 2000). Her ideal
Change in repertory grids in DBT: two case studies

self continued to be similar to a member of staff (0.42), but saw her self as being more similar to the member of staff (0.82) and her Dad (0.96) than she had previously.

[Table 10 here]

There was an overall correlation of 0.51 between her pre- and post-DBT repertory grids, indicating that some changes in her construing had occurred. Correlations between the salient elements are reported in Table 10. It can be seen that there is most correlation between the ideal self-ideal self and ideal self-staff. There is least correlation between the self-self, self-ideal self and ideal self-Mum. The differential changes reported in Table 11 are also consistent with this, showing that the greatest changes have occurred in the construing of self, Mum and Dad; with construing of her ideal self, staff and brother remaining the most static.

[Table 11 here]

Following completion of DBT Sarah had no remaining implicative dilemmas.

Case study 2: Laura

Laura was an 18-year old woman with learning disabilities who had been referred to DBT due to her difficulties with self-injury. Her repertory grid was elicited using the same technique as with Sarah.

A pingrid of Laura’s construing prior to DBT is presented in Figure 9. PCA revealed that her first component accounted for 73.60% of the variance in her construing, with her ideal self and a specified celebrity being the most salient elements. The second component accounted for 13.31% of variance in construing, and her self and her therapist were the most salient elements.
Prior to DBT, the standardised element Euclidean distance between her self and ideal self was 1.11, indicating low self-esteem (Böker et al., 2000). She saw her ideal self as being similar to a celebrity (0.37), and dissimilar from her Mum (1.81). She did not have any implicative dilemmas prior to DBT.

Laura’s repeated pingrid following DBT is shown in Figure 10. PCA showed there had been an increase in the cognitive complexity of her construing, with her first component accounting for 66.31% of the variance. The most salient elements changed to her Dad and Grandma. The second component accounted for 19.54% of the variance in construing. Her self remained salient, a staff member became more salient, and her therapist less salient.

Laura attended 48% of skills training groups offered, and 15 individual sessions as part of DBT. Following these the repertory grid was repeated using the elicited constructs and elements. The standardised element Euclidean distance between her self and ideal self increased to 1.26, indicating continued low self-esteem (Böker et al., 2000). Her ideal self continued to be similar to a celebrity (0.58) and dissimilar to her Mum (1.54).

There was an overall correlation of 0.70 between her pre- and post-DBT repertory grids, indicating a strong relationship. Correlations between the salient elements are reported in Table 12. It can be seen that there is most correlation between the self-Mum elements. There is least correlation between the ideal self-ideal self. The
Change in repertory grids in DBT: two case studies

differential changes reported in Table 13 are also consistent with this, showing that the greatest changes have occurred in her construing of her ideal self and her sister. Her construing of her Mum and Grandma were the most static.

[Table 13 here]

Following DBT Laura had developed three implicative dilemmas which are presented in Figure 11. She identified ‘lets me do stuff I want to’ vs. ‘too overprotective’ as a discrepant construct, and stated that her ideal self would be closer to ‘too protective’ as she explained that she ‘would like to be more protective and stop self-harming’. However, a movement towards ‘too overprotective’ was correlated with the undesired constructs of ‘miserable’, ‘boring’ and ‘not understanding’.

[Figure 11 here]

Discussion

Sarah demonstrated a clinically significant improvement in self-esteem (Böker et al., 2000) and resolutions of implicative dilemmas following completion of DBT. Prior to DBT Sarah identified similarities in the construing of her ideal self and a member of staff who was particularly salient, and following DBT there was reduction in the distance between her self and the staff member. Sarah’s changes in construing primarily took place within the elements of her self and her two most salient family members (her Mum and Dad). Following DBT there was little change in her construing of her preferred elements of ideal self and staff. These findings suggest that she viewed herself in a more positive light following DBT.
Change in repertory grids in DBT: two case studies

Laura initially had a low complexity of construing, however this increased following DBT. Both prior to, and following, DBT, Laura saw her ideal self as being similar to a specified celebrity. Prior to DBT she had a discrepancy between her construing of her self and her ideal self, indicating low self-esteem, and this increased further following DBT. Her construing of her ideal self altered more than that of her self, and she identified implicative dilemmas that had not been present prior to DBT. She identified that her perception of the constructs had changed, for example following DBT she recognised that her ideal self would be closer to ‘too protective’ as this would be associated with a reduction in self-injurious behaviour. Laura’s increased complexity of construing, combined with the altered view of her ideal self and the identification of implicative dilemmas, may be suggestive that following DBT she has developed some insight into areas of her self that she would like to change and how this change might occur.

The data captures changes that are idiosyncratic to the individuals, and explores the process of psychological change, for example the process of identifying and resolving implicative dilemmas. This is highlighted by the contrasting experiences of Sarah and Laura whose data indicates that they are at differing stages in their understanding of their difficulties and their ability to change.

A key limitation of the research is the absence of a robust design, including control groups, blinded researchers to the allocation of groups and measures of treatment adherence. These limitations in the design mean that it is not possible to conclude whether changes in personal construing were attributable to DBT.

Combined, the case studies demonstrate that PCP, and more specifically repertory grid technique, can provide an alternative approach to more behavioural or
psychiatric methods of evaluating interventions in adults with learning disabilities. Repertory grids provide a methodology that allows individuals to fully engage in the evaluative process using elements and constructs that are meaningful to them. It is a technique that is done ‘with’ people with learning disabilities, rather than ‘to’ them, and as such provides a collaborative and person-centred tool to measure change. Repertory grids allow the exploration of relationships and construing in an open-ended, non-invasive way that does not pathologise the person or their difficulties. They require the researcher or clinician to accept the construct pairs that participants produce, even if the pairs do not seem logically opposing. This ‘credulous listening’ (Jankowicz, 2003) allows clients’ construing of their experiences to be validated and accepted as being idiosyncratic.

This individualised, person-centred approach to measuring psychological change is in contrast to standardised psychometric measures that are not personalised to the individual, but instead can provide a reductionist approach that does not capture the complexity of people’s perceptions or experiences. Similarly behavioural measures often do not involve the individual with learning disabilities in their collection, but are reliant upon other’s observations, and therefore may not be reflective of what the person with learning disabilities is experiencing.

Repertory grid technique also appears to have face-validity for participants, and the author noted that participants appeared to enjoy the process of completing them. They were able to talk widely about why they rated elements on each of their constructs, and at the follow-up were qualitatively able to discuss how their experiences of adapted DBT were reflected in their altered construing.
Change in repertory grids in DBT: two case studies

One key strength of repertory grid data is that it provides a rich source of information that may not have been within the awareness of the individuals prior to its assessment (Winter, 1992). This information can be used by clinicians and individuals to contribute to psychological formulations and collaboratively develop an understanding of how each person sees themselves within their environment. This is consistent with the proposal by Kelly (1955) that repertory grids can be used to provide a clinical assessment that can be used to develop hypotheses that can be tested within a therapeutic framework.

In conclusion, repertory grids and PCP provide a meaningful tool for assessing people with learning disabilities in a manner that is accessible, individualised and collaborative, and the data can be used by clinicians or researchers in order to contribute to formulations and measure idiosyncratic psychological change.
Change in repertory grids in DBT: two case studies

References


Change in repertory grids in DBT: two case studies

for trichotillomania: 3-and 6-month follow-up results. Depression and anxiety, 28(4), 310-313.


Change in repertory grids in DBT: two case studies


Change in repertory grids in DBT: two case studies

### Table 10: Correlations between salient elements pre- and post-DBT for Sarah

<table>
<thead>
<tr>
<th>Elements (pre-post)</th>
<th>Self-Self</th>
<th>Self-Ideal Self</th>
<th>Self-Mum</th>
<th>Self-Dad</th>
<th>Self-Staff</th>
<th>Ideal Self-Ideal Self</th>
<th>Ideal Self-Mum</th>
<th>Ideal Self-Dad</th>
<th>Ideal Self-Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation</td>
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<td>0.10</td>
<td>0.63</td>
<td>0.43</td>
<td>0.50</td>
<td>0.80</td>
<td>-0.13</td>
<td>0.59</td>
<td>0.92</td>
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</table>

### Table 11: Differential changes of elements for Sarah following DBT

<table>
<thead>
<tr>
<th>Element</th>
<th>Self</th>
<th>Ideal self</th>
<th>Staff</th>
<th>Hamster</th>
<th>Cat</th>
<th>Rabbit</th>
<th>Mum</th>
<th>Brother</th>
<th>Dad</th>
<th>Baby cousin (male)</th>
<th>Baby cousin (female)</th>
<th>Mean change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean change</td>
<td>2.50</td>
<td>-0.06</td>
<td>-0.13</td>
<td>-0.50</td>
<td>-1.19</td>
<td>-0.19</td>
<td>-3.06</td>
<td>0.25</td>
<td>1.69</td>
<td>-0.38</td>
<td>1.06</td>
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</table>

### Table 12: Correlations between salient elements pre- and post-DBT for Laura

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation</td>
<td>0.23</td>
<td>0.22</td>
<td>-0.46</td>
<td>-0.33</td>
<td>0.93</td>
<td>-0.06</td>
<td>-0.43</td>
<td>0.16</td>
<td>0.46</td>
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</tbody>
</table>

### Table 13: Differential changes of elements for Laura following DBT

<table>
<thead>
<tr>
<th>Element</th>
<th>Self</th>
<th>Ideal self</th>
<th>Mum</th>
<th>Celebrity admire</th>
<th>Therapist</th>
<th>Staff 1</th>
<th>Dog</th>
<th>Sister</th>
<th>Dad</th>
<th>Grandma</th>
<th>Staff 2</th>
<th>Deceased Auntie</th>
<th>Mean change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean change</td>
<td>0.35</td>
<td>-1.87</td>
<td>-0.15</td>
<td>-1.08</td>
<td>-0.44</td>
<td>0.99</td>
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<td>-0.58</td>
<td>-0.15</td>
<td>-1.30</td>
<td>0.85</td>
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</table>
Change in repertory grids in DBT: two case studies

Figure 6: Sarah's pingrid prior to DBT
Change in repertory grids in DBT: two case studies

Figure 7: Sarah's implicative dilemmas prior to DBT
Change in repertory grids in DBT: two case studies

Figure 8: Sarah's pingrid following DBT

Figure 9: Laura's pingrid prior to DBT
Change in repertory grids in DBT: two case studies

Figure 10: Laura's pingrid following DBT
Change in repertory grids in DBT: two case studies

Figure 11: Laura's implicative dilemmas following DBT
Paper 3: Critical Appraisal
Introduction

This paper provides an overview of the experience of completing the research project. It provides reflections on the author’s selection of the project and the methodologies; it considers the process of completing a narrative review, the rationale for the design, methodology and analyses used within the empirical papers and the implications for future research and clinical practice. The author discusses the areas of the research process that have presented the most notable challenges, and also which experiences have been valuable in developing their research and clinical skills.

Thesis Context

The author was interested in developing this research project as they had previously worked in forensic services for adults with intellectual and developmental disabilities (ID/D) where a number of individuals presented with high levels of risk, particularly to themselves. These clients presented the multi-disciplinary teams with many challenges including the identification of appropriate evidence-based psychological approaches, and there was a dominant medical model within the service. The author had also worked as a researcher in forensic services for women without ID/D, and across these services Dialectical Behaviour Therapy (DBT) was widespread in its use with good effect. The differences that the author recognised in the services available to adults with and without ID/D are in opposition to the recommendations of Valuing People Now (Department of Health, 2010) that individuals with ID/D should have access to the same range of services as those in the wider population.

The service in which the research was conducted is one of the few in the UK to provide an adapted DBT programme for adults with ID/D in the community.
Anecdotally the therapists thought that the programme was beneficial to clients, however it was agreed that as part of the scientist-practitioner role of Clinical Psychology it was important to empirically evaluate it.

**Paper 1: Literature Review**

**Design**

A systematic review of the research into DBT for individuals with ID/D was conducted to get an overview of how DBT was being used with individuals with ID/D, the methodology used in the studies and any outcomes published regarding the efficacy of adapted DBT. In the early stages of the literature review process the author was unsure what format the review would take, other than being a systematic review, as they did not know what the identified papers would consist of. Systematic reviews are designed to provide a rigorous methodology and, because of this, they are considered to be original pieces of work. They allow large amounts of research to be aggregated in a coherent way in order to answer specific research questions, and the methodology used to identify and appraise the research is included as part of the review (Khan, Ter Riet, Glanville, Sowden, & Kleijnen, 2001). Despite the use of specified methodologies, systematic reviews continue to have some areas of bias, most notably the tendency for only positive results to be published, the typical inclusion of only English language publications and the reliance on electronic databases (Cipriani & Geddes, 2003).

There have been systematic reviews of DBT within the wider population, most notably with reference to Borderline Personality Disorder (BPD) (Binks et al., 2006), and there is evidence that this is a pertinent issue for adults with ID/D (Pridding & Procter, 2008), however there did not appear to be a systematic review regarding
DBT for individuals with ID/D. Harper, Webb, and Rayner (2013) considered DBT as part of their review of mindfulness interventions for people with ID/D, however they did not appear to have comprehensively identified all the relevant papers that the author was aware of prior to a systematic search.

The author initially had concerns that there would not be sufficient publications regarding DBT for individuals with ID/D that would be suitable for review, however decided that given the relevance to the research area and the need to consider whether therapies can be adapted for people with ID/D, that they would pursue the review speculatively. The author initially considered including other third wave cognitive therapies such as Acceptance and Commitment Therapy (ACT), Metacognitive Therapy (MCT) and Schema Therapy, however preliminary searches identified that the majority of published research regarding third wave therapies for individuals with ID/D considered DBT only, and that there was even greater paucity of research regarding other third wave therapies. It was therefore decided that the review would only consider DBT in order to focus more specifically on whether DBT can be adapted for individuals with ID/D.

The author decided that, given the limited publications that were suitable, they would place minimal restrictions on the studies selected for review. They decided to include any studies published in the English language that included outcomes regarding DBT for individuals with ID/D. The author also decided not to exclude papers that had not been published in peer-reviewed journals (e.g. Hall, Bork, Craven, & Woodrow, 2013). Peer-review is widely seen as increasing the quality of publications (Ware, 2008), however given the limited research available the author decided to include the non-peer-reviewed paper initially, but remained mindful that it could be excluded following critical appraisal if it appeared to be of a significantly lower standard than
the other selected publications, however this did not prove to be the case. The author also considered the inclusion of book chapters and conference presentations, however there was little consistency in the format in which these were presented, particularly with reference to the methodologies used, and therefore they would have been challenging to evaluate. The author was aware that some book chapters and conferences presentations would not be identified through electronic database searching, and therefore there was greater chance of omitting a suitable study. The author also identified that some chapters and conference presentations were replications of published journal articles, and therefore would create a false impression that there were greater amounts of research available.

Studies identified included the adaptation of DBT for a broad range of clients with ID/D including adolescents, adults in community settings and adults in forensic settings. Studies ranged in their inclusion of all the elements of DBT, or whether they only provided the DBT skills group. There were also inconsistencies in whether DBT was used as the primary treatment, or whether it was used as a component of a wider offence-related treatment. Few studies provided information regarding the details of how ID/D were defined, and one study (Brown, Brown, & Dibiasio, 2013) included a wider set of participants with development disabilities including Autistic Spectrum Disorders (ASD), however the mean reported IQ of the sample was less than 70, and more than 75% of participants met this criteria, therefore the author decided it would be included in the review.

**Narrative Review**

There was little consistency in the studies identified by the systematic selection. Meta-analyses are widely used in the synthesis of systematic reviews; however the
author identified that this would not be appropriate for the current review. Cipriani and Geddes (2003) warn of the use of applying meta-analyses indiscriminately, particularly when the initial data is of poor quality and consistency.

A narrative synthesis was proposed by the author as it was felt that this was appropriate for an initial scoping review of the evidence, and allows for the inclusion of a greater variety of studies, such as that of different populations with ID/D, and also allowed the author to include qualitative findings (Popay et al., 2006).

**Critical Appraisal Tool**

The author found it difficult to identify a tool to critically appraise the identified papers. It was apparent prior to formal appraisal that all the studies had small samples and were service evaluations, rather than more rigorously designed research trials. This is likely to be due to the many challenges that are present when conducting randomised control trials of psychological interventions with people with ID/D; these challenges include the ethics of withholding treatment to control participants, concerns regarding informed consent and a lack of available funding for research (Oliver et al., 2002). The author, therefore, decided to consider critical appraisal tools used within other systematic reviews of research regarding interventions for people with ID/D. The Evaluative Method for Determining Evidence Based Practice (EBP) (Reichow, 2011) was primarily developed for reviews relating to ASD, however it has also been used within reviews of interventions for people with ID/D (e.g. Chapman et al., 2013). The Evaluative Method for Determining EBP can also be used for the evaluation of single-case studies which the author had anticipated may be required, although this turned out not to be the case.
The Evaluative Method for Determining EBP identified that the overall standard of
the research was poor, and, due to the absence of a comparison condition in the
majority of the studies and the lack of details regarding the methodologies, all the
identified studies were scored as ‘weak’. This finding meant that it was not possible
to differentiate between the quality of the identified papers which the author did not
feel was fully reflective of the papers; for example, some studies were rated as weak
due to the limitations of conducting a service evaluation as discussed above, whereas
other studies did not appear to have accurately defined and tested their hypotheses,
which the author considered to indicate a poorer level of research.

One of the aims of the narrative review was to explore the adaptations made to DBT
in order to consider its applicability to people with ID/D, and the Evaluative Method
for Determining EBP considered whether the independent variable (i.e. the
intervention) was adequately described, or if a manual was used. Several studies
cited that they used their own manuals, however the level of explanation given to the
adapted model varied between studies, and there was little uniformity between
services. This is a limitation for the clinical implications of the available research as
it does not provide sufficient information to clinicians regarding how to deliver
adapted DBT for people with ID/D.

Papers 2a, 2b and 2c: Empirical Papers

Psychometric Measures

The author was aware that the Specialist Psychological Therapies Service routinely
collected psychometric data in order to evaluate the adapted DBT programme and
review individuals’ outcomes. The author therefore did not have input regarding the
selection of the psychometrics. Broadly speaking the author was in agreement that
the selected psychometrics were appropriate, and three out of the four have been validated for use with adults with ID/D. The Cognitive and Affective Mindfulness Scale-Revised (CAMS-R) (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007) has not been validated adults with ID/D; however the author was unaware of an alternative measure of mindfulness skills that has been validated for this population. The author would have also liked the study to have included measures of skills related to the other modules of DBT (interpersonal effectiveness, emotional regulation and distress tolerance).

The psychometric data was made available to the author, however, due to its nature as a clinical evaluation tool rather than a robust research tool, there were not full datasets available for all clients; most notably the Novaco Anger Scale (Northgate Modification) (NAS) (Novaco & Taylor, 2004) had not initially been selected, but had instead been introduced after the first cohort of clients.

The author also excluded the data of two clients who had disengaged from DBT following completion of the initial psychometric assessments. Whilst information on these clients is likely to be of clinical interest, the author decided to exclude them as it was felt that the sample was too small to have been of utility, and there were also several other clients who disengaged during the pre-treatment phase of DBT who had not completed the psychometrics by the time of their discharge, therefore the dataset of disengaged clients was considered to be too incomplete.

Some participants had completed the DBT skills group more than once, which is consistent with the model proposed by Linehan (1993a). This left the author unsure how to analyse the data as they wanted to capture the changes made by the point of discharge. The author considered looking at outcomes at the point of mid-
intervention for these clients (i.e. after completion of one DBT skills group), however, there were large amounts of data missing at this point, with the majority of clients only completing the psychometrics during the pre-intervention phase and again at discharge. The decision was therefore made that the data would be analysed at each participant’s point of discharge from DBT, however the results of those who had repeated the DBT skills group would be compared to those who had only completed it once. Overall there were no significant differences between the results of those who completed DBT skills group once or repeated it; however, those who repeated it had additional improvements on the measures of anxiety and mindfulness skills which indicates that there may be a dose effect of DBT.

The sample available for the psychometric data was small, and therefore the author was aware prior to analysis of the data that there was an increased risk of Type II errors, and it is possible that this occurred in the results that were reported as not being significant (i.e. the main effect of the number of DBT group interventions received and the interactions between time and number of DBT group interventions on the measures of depression and anger). The author calculated effect sizes in order to provide further detail regarding the level of changes in the measures following intervention.

A limitation of both the psychometric and repertory grid data is the absence of a control group. A control group would have allowed greater inferences to be made regarding the impact of adapted DBT on the outcome measures. The use of appropriate control groups within clinical settings is problematic, as it would have been unethical to withhold treatment to individuals who presented with high levels of distress and high risk behaviours. A further limitation of both types of data is the absence of baseline or follow-up data. Whilst not being a substitute for a control
group, baseline data would have allowed the author to make comparisons with data that was collected from a time period when adapted DBT was not provided. Follow-up data would have allowed conclusions to be drawn regarding the longer lasting impact of adapted DBT. The primary reason for not collecting baseline or follow-up data was that the majority of participants were not in contact with the hosting department prior to their referral for DBT, and many were discharged shortly following completion of the intervention.

*Repertory Grid Technique*

The author was interested in using a method that would complement that provided by the psychometric data. Mixed methodology research can provide a broader understanding of a research area (Johnson, Onwuegbuzie, & Turner, 2007). Typically qualitative data is gathered used semi-structured interviews, however, with respect to this research, the author had concerns about recruiting participants with ID/D who accessed DBT. They were concerned that interviews would be too formal and intimidating for some individuals, and would deter them from participating. The author was also interested in capturing specific changes that occurred during DBT, and it would have been difficult to extrapolate this information from interview data.

Kelly (2003) proposes that Personal Construct Psychology (PCP) requires that therapists are accepting of their client’s personal construction system and provide validation for this. PCP suggests that changes in construing following psychological interventions will occur via the process of behavioural changes and exploring the consistency of construing (Jankowicz, 2003). This parallel process of providing validation of an individual’s experiences and behavioural responses, combined with a process of finding alternative coping skills is also a significant component of DBT.
These similarities led the author to consider PCP methodologies as they appeared to be compatible with the philosophies of DBT.

There are several methodologies available to capture PCP data (Walker & Winter, 2007), however repertory grid technique is the most widely used. The author was attracted to the flexibility of repertory grids, and felt that they would capture idiosyncratic changes in individuals, whilst still providing a robust measure that could be compared at different time points. It has been proposed that repertory grids explore aspects of construing that participants may not be fully aware of, and therefore capture data that would not have been collected via interview techniques (Winter, 1992).

There is little consensus with regard to the ‘standard’ format of a repertory grid, therefore the author had multiple decisions to make regarding its design. The author considered whether to elicit elements from participants or supply them; elicitation of elements is considered to be more in keeping with the philosophy of PCP of individualised construing, however supplied elements allows for more comparisons between different individuals (Fransella, Bell, & Bannister, 2004). The author decided that, as change was the main focus, that elements would be elicited for the pre-intervention repertory grids, and the same elements would be supplied for the repeated grid. This allowed within participant analysis to occur. One of the disadvantages of using elicited elements and constructs is that participants varied in the number of each that they could produce. If there had been consistency in the sizes of the grids comparisons could have been made between participants on principal components analysis (PCA) and tightness of construing, however this is not possible if participants have different size grids (Bell, 2004), and smaller grids are known to have tighter construing (Winter, 1992). Allowing participants to include
additional elements or constructs at the post-intervention grid could have captured changes in their content; for example, prior to DBT only two participants considered their therapist as being an important role to them, however this may have changed following DBT.

The author also considered the methodology used to elicit constructs from clients. Triadic elicitation, a technique in which participants are asked to identify two selected elements that are similar to each other but different from a third, is generally considered to be the preferred approach (Jankowicz, 2003). However, this approach is difficult to use with individuals who have cognitive difficulties, and therefore a simplified dyadic approach developed by Salmon (1976) for use with children is generally used in ID/D research (Hare, 1997; Hare, Searson, & Knowles, 2011; Mason, 2003, 2008). Reddy (1999) compared dyadic and triadic elicitation methods, and found that dyadic elicitation does produce less cognitively complex grids, however grids are more likely to be balanced between negative and positive construing than triadic elicitation techniques.

The author noted that during the elicitation of constructs that some participants identified construct pairs that were not intuitively opposing to each other, for example ‘able to look after me vs. disabled’, ‘has a good job vs. not allowed to work’ and ‘a drinker (occasional) vs. pissed all the time’. The author clarified that participants were decided on these constructs pairs, but did not challenge their content. This is consistent with the approach discussed by Jankowicz (2003) that repertory grid technique requires ‘credulous listening’ that does not challenge an individuals’ construing. Similarly, some participants identified non-human elements such as pets and several also included role-models that were important to them including celebrity figures. One participant identified a ‘special’ man as an element
which she defined as being what she would like a partner to be like. The acceptance by the author of these elements is also consistent with the principals of PCP, and provides interesting qualitative information about the relationships and figures that people with ID/D perceive as being important.

The author considered digitally recording the repertory grid interviews, and several studies have used the recordings to extract further qualitative data regarding the construing (e.g. Thomas, Butler, Hare, & Green, 2011). The author decided against this as they were concerned that this would potentially be a deterrent to recruitment and consent.

An additional component to the repertory grid technique that could have been considered by the author would have been to do a follow-up interview with participants that elicited their feedback of the methodology and discussed their agreement with the findings. One participant asked for this at the end of the research, and the author agreed that they would provide feedback via the participant’s therapist.

Analysis of the repertory grid data proved to be challenging for the author as it was an unfamiliar methodology. There was a conflict within the author regarding whether to analyse the data collectively or individually. The author was interested in grouped changes in order to make conclusions about the efficacy of the adapted DBT programme, however repertory grid technique is primarily focussed on idiosyncratic data and this is lost when data is analysed by group. The analysis and presentation of the data was primarily influenced by reviewing of other published repertory grid studies. The author used Idiogrid (Grice, 2002) to analyse the data as this was the most consistently used software amongst recent publications exploring change.
within repertory grids, however this presented the author with the challenge of learning to use a novel software programme.

**Recruitment and Consent**

The author was aware prior to the study that the available population for the research was small, and therefore they were keen to maximise recruitment. The author also had concerns with a small sample that participants would be identifiable, and therefore they collected and reported minimal demographic information in order to preserve anonymity.

The author found recruitment to be a challenge throughout the study. Due to the length of the adapted DBT programme (six months) and the limited resources available within the hosting department, there were only three opportunities for the author to recruit participants over the period of a year. During this period 11 participants were invited to the DBT programme. Of these, nine (81.81%) initially agreed to meet with the author to find out more about the research, however a further two disengaged from DBT prior to this meeting occurring. The remaining seven consented to complete the research, which although this was a small sample, represented 63.63% of clients who commenced DBT during a one year period. Five participants completed DBT which represented 71.42% of clients who completed the programme during the one year period.

Due to the small population available to recruit from, the author utilised several strategies in order to maximise recruitment. The primary strategy was regular liaison with DBT therapists regarding the research, as the author was reliant on their introductions as ethical restrictions prevented the author from contacting potential participants directly prior to consent. This strategy of accessing participants via a
link person has been found by Lennox et al. (2005) to be the most successful in recruiting individuals with ID/D. The author provided therapists with information about the research, and encouraged them to provide this to their clients. The use of a summary information sheet (Appendix 5) also allowed therapists to provide clients with some written/pictorial information about the research. This liaison required the author to build good relationships with the therapists and to be available to answer any queries they had. Generally these relationships were not problematic as the therapists were motivated for the research to occur within their service.

Once potential participants were identified and invited to take part in the research, they were offered an appointment with the author in order to be given more information about the study. Following this meeting participants were then invited to another appointment during which consent was collected and the initial repertory grid was completed, with a period of at least 24-hours elapsing between the appointments in order to comply with ethical approval requirements. The author was aware that some potential participants may experience anxiety about meeting a new person, and therefore the initial meeting with potential participants was done as part of a therapy session with their DBT therapist present to introduce the author.

Once participants had initially agreed to participate in the study, several had difficulties attending the research appointments. Some clients disengaged from DBT completely, and this is consistent with a ‘butterfly’ attachment described by Linehan (1993a) in which clients fluctuate between engagement and disengagement, as they have identified psychological difficulties and seek help, but simultaneously find it threatening to consider change. Other clients had difficulties attending appointments for financial reasons or difficulties travelling independently. The author did not offer travel expenses or financial incentives as they did not want participants to have any
other motivation for participating in DBT other than a desire to change. The author endeavoured to be flexible with participants, and wherever possible offered research appointments immediately prior to, or following, other DBT appointments to remove the demand for additional journeys. Other research appointments were missed by clients due to crisis episodes, such as hospital admissions, self-harm behaviours and the use of alcohol or substances.

In line with the Mental Capacity Act (Department of Health, 2005) the author assumed that all potential participants had the capacity to take part in the research, however they remained mindful of the issue of consent throughout. The author discussed consent with potential participant’s therapists and they were asked to highlight any concerns relating to capacity. Capacity to understand the research was enhanced through the use of oral and written information prior to meeting with the author. Potential participants were encouraged to seek support if required to read the participant information sheet and the author also read out the information in full in each research appointment prior to gaining consent. The discussion regarding consent to take part in the research over two appointments allowed the author to ensure that participants had retained the information previously provided, and that their decision to participate was consistent. Consenting was considered by the author to be a dynamic process during which participants were encouraged to ask questions, and the author asked questions to ensure that the information was understood. Prior to the completion of the post-intervention repertory grids consent was reaffirmed and participants were reminded of their right to withdraw from the study at any time.

The author had concerns about offering multiple appointments to participants who had not attended previous research appointments. The author wanted to ensure that participants consented freely and were aware that they were not required to
participate in the study, and therefore did not want the participants to feel pressured by offering unlimited research appointments. However, the author was also mindful that many participants were likely to have had a history of abandonment and relationship difficulties, and did not want the participant to feel rejected. On occasions where participants did not attend appointments the author liaised with the client’s individual therapists to ensure that clients were aware that they had the choice about whether or not to rearrange the appointment.

**Treatment Fidelity**

The adapted DBT programme was delivered by the same group facilitators and one additional individual therapist. All DBT facilitators were Clinical Psychologists who had received DBT intensive training and had significant experience working with adults with ID/D. The treatment programme had been adapted from Linehan (1993a, 1993b) by the facilitators based on their training and expertise. It had not been formally manualised, although session plans were used consistently between groups. Due to the innovative nature of the programme, some aspects were altered based on feedback from previous cohorts or individual needs of service users, for example, repetition of content as required. The adherence to the session plans was not assessed, and therefore it cannot be guaranteed that the therapy delivered to participants in different cohorts was consistent, however the risk of this is reduced given the consistency of the facilitators. Future research could analyse data between cohorts in order to investigate whether the outcomes are consistent.

Given the small population available to recruit from, the author gave consideration to including an additional research site that also provided adapted DBT for adults with ID/D. However, the adaptations made by the services would have differed, and the
author decided that it was more important for the intervention to be consistent than to have a larger sample.

**Personal Challenges of Research Process**

The author experienced several personal challenges throughout the research process. The author was aware that potential participants were likely to have low levels of literacy and required information to be presented in an easy-read format. These adaptations were considered when designing the participant information sheets and consent forms, however the author found it difficult to find the balance between the information being accessible to people with ID/D whilst also providing sufficient information to make informed consent and comply with the requirements of the ethical approval committee.

The adaptation of repertory grids to people with ID/D was something that the author also had concerns about prior to recruitment, and they were apprehensive that participants would find it difficult to understand or be reluctant to engage with. The author had considered how they could make the repertory grids less reliant on written information, and had considered the use of pictorial aids if required. No participants required this, and the author found that providing verbal cues throughout the repertory grid elicitation was sufficient for participants to be able to engage in the process. One limitation of this approach is that the elicitation process required a lot of input from the author, and adaptations that would have allowed participants to be more autonomous may have made participants feel more comfortable, particularly when labelling elements with negative constructs.

The author found the dual-role of being a researcher and a clinician difficult to balance at times. This role was complicated at times by the author being on clinical
placement within the hosting department for some of the recruitment period. Some participants noted interesting information about their relationships during the repertory grid process, and on some occasions had emotional reactions when discussing their relationships. On these occasions the author found it difficult to stay within a researcher role, as they were aware that some of the information would be of value clinically and would help develop the individual’s formulations. On these occasions the author encouraged participants to share the information with their therapist if they thought it would be of value to explore it further. If participants did have an emotional reaction the author followed the distress protocol (Appendix 9) which included asking participants if they wished to continue with the research and assessing any risk.

On one occasion the author had to break confidentiality due to the perceived risk that the participant disclosed. The author was able to discuss this with the participant who was in agreement, and requested that the author share the information with their therapist. The author had concerns about how this break in confidentiality would impact on the research relationship, however the participant stated that they understood the need to share risk information, and that reasons to break confidentiality had been made clear in the consent process. The participant continued with the research following this, and it did not appear to significantly impact on their relationship with the author.

**Presentation of Multiple Papers**

The author made the decision to produce multiple empirical papers. The use of multiple papers allowed the author to disseminate the research to a broader range of journals aimed at different audiences, for example clinicians who work with people
with ID/D who may have an interest in adapted DBT and Clinical Psychologists who work in different fields, but may be interested in repertory grids as a technique to evaluate change following psychological interventions.

The author had intended to write two empirical papers initially; one containing the psychometric data that was available, and the second focussing on the repertory grid data. This decision was made as the author felt that the information would be more coherent if the data from different samples using different methodologies was presented separately, but together they could provide a consilience of information regarding adapted DBT for adults with ID/D. The author also felt that the information would be of utility to different audiences; for example the psychometric data provides information about the impact of DBT which could be useful to those designing and commissioning services. The repertory grid paper may be of interest to clinicians in any field who are considering methods of assessment and considering issues such as self-esteem and sense of self for clients who may present with high levels of complexity. The author decided that the repertory grid data would benefit from being presented as an over-arching paper regarding changes in construing and an additional paper detailing case studies. The use of case studies allowed the author to present a more in depth exploration of the data, which captured some of its richness and the complexity of the participants’ construing.

One challenge of writing multiple papers for submission to different journals was the different focus and writing style required for each publication. The author found it a challenge at times to keep each individual paper’s focus clear.
Research Implications

Additional Data Collected

The author collected additional data to that presented within the empirical papers of this thesis. This data consisted of Personal Questionnaires (Shapiro, Caplan, Rohde, & Watson, 1975) and service utilisation information, and was collected to review participants’ progress within the DBT programme, in order to investigate at what stage changes occur. Data was collected from the seven participants who had consented to take part in the research, however two disengaged following this, therefore data was only collected for five participants. Future work could include collecting more data and analysing this.

Personal Questionnaires

Personal Questionnaires (Shapiro et al., 1975) were used to provide a structured format to quantify participants’ progress with idiosyncratic goals (target behaviours). Previous research has demonstrated that Personal Questionnaires are accessible to an ID/D population, and are considered a robust tool due to their inbuilt consistency check (Dagnan, Dennis, & Wood, 1994). Personal Questionnaires were administered to participants by Clinical Psychologists as part of each of their individual DBT sessions. Participants were presented with two cards and asked which best fitted their engagement with their target behaviour over the previous week. The cards stated ‘A lot’, ‘Sometimes’ and ‘Never’ and had pictorial aids. Two versions of the pictorial aids were available, dependent on whether the participant wished to increase or decrease their target behaviour (Appendix 10). Each combination of two cards was shown to the participant until all three possible combinations had been presented. The responses were recorded on a response sheet (Appendix 11) and scored as
outlined in Table 14. Any other combinations of results were considered to be invalid as they were inconsistent. Some target behaviours (e.g. avoid self-harming) were reverse coded in order to indicate that a high score represented an undesired behaviour.

Table 14: Scoring of Personal Questionnaires

<table>
<thead>
<tr>
<th>Combination 1 (response highlighted)</th>
<th>Combination 2 (response highlighted)</th>
<th>Combination 3 (response highlighted)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot/Never</td>
<td>Sometimes/ Never</td>
<td>Sometimes/ A Lot</td>
<td>4</td>
</tr>
<tr>
<td>A lot/Never</td>
<td>Sometimes/ Never</td>
<td>Sometimes/ A Lot</td>
<td>3</td>
</tr>
<tr>
<td>A lot/Never</td>
<td>Sometimes/ Never</td>
<td>Sometimes/ A Lot</td>
<td>2</td>
</tr>
<tr>
<td>A lot/Never</td>
<td>Sometimes/ Never</td>
<td>Sometimes/ A Lot</td>
<td>1</td>
</tr>
</tbody>
</table>

Once collected, it became apparent that there were large amounts of missing Personal Questionnaire data, with the five participants who completed the DBT programme having a median of 8 (range 7-18) sets of data. Data was missing either because the participant had missed their individual DBT appointment, or because the therapist had been unable to complete the measure within the session. The author was concerned that the data collected would be biased towards times when participants were doing well, as they were more likely to miss appointments or require their sessions focus on crisis management when they were having difficulties. Due to the small sample size and the missing data, it was decided by the author that the data would not be analysed and reported. Anecdotally, the therapists reported that they found the use of personal questionnaires to be helpful in reviewing participants’ target behaviours in a structured manner, and therefore it would be interesting to explore their utility further with a larger sample.

Service Utilisation Data

Participants’ electronic patients records were also reviewed by the researcher, and any significant acts of service utilisation such as attendance at Accident and
Emergency (A&E), acts of self-harm and contact with out-of-hours mental health services that occurred during their participation in the DBT programme were recorded.

As the majority of participants were living within community settings throughout their time in the DBT programme, there was little information available. Some participants lived within supported accommodation with staff available, and were therefore less likely to require support from mental health services outwith of sessions, and self-harm incidents were not always reported. Visits to A&E were also inconsistently recorded within participants’ electronic patient records as individuals were not always assessed by the Mental Health Assessment Team at A&E, particularly if the participant was a regular attendee. Similarly to the Personal Questionnaire data, the author hypothesised that participants were less likely to attend DBT if they had recently self-harmed, and therefore services may have been unaware of some incidents. Two participants spent periods of time during the DBT programme in NHS inpatient services, and therefore had more data available for consideration by the author. Due to the overall low levels of reported service utilisation and inconsistencies between participants, the author decided not to analyse and report this data. Future research could consider this data with a larger sample of participants. The use of this data would also be enhanced with the inclusion of baseline and follow-up data.

**Future Research**

The systematic review and empirical papers indicate that, whilst there is emerging evidence that DBT can be adapted for individuals with ID/D, additional research is required in order to investigate this further. Future research should be done using
larger samples across different settings and in isolation to any other therapeutic interventions. To date the majority of the research regarding adapted DBT has not considered subsets of people with ID/D. Future research with a larger sample would allow explorations of whether adapted DBT has consistent outcomes across individuals with different presenting problems, such as self-harm or aggression, specific mental health diagnoses, such as BPD, and specific ID/D diagnoses such as ASD. Research could also explore whether adapted DBT is accessible for all individuals with an ID/D, or whether it is more suited to those with a borderline or mild ID/D.

As DBT is a multi-modal treatment programme that is comprised of separate modules, future work could explore which elements of the adapted programme are most influential in contributing to positive outcomes for adults with ID/D. This would allow services to focus on these aspects, and potentially provide a more cost-efficient DBT programme. Similarly, future work could explore which adaptations to the DBT programme are most helpful for people with ID/D, and the adapted DBT model could be further developed based upon this information.

Future research is required to explore the long-term outcomes for people with ID/D who receive adapted DBT. These outcomes could include the measures presented in this study, but could also include the long-term impact on service provision such as use of psychological, inpatient and out-of-hours services. Outcomes could also include indicators of social activity and well-being, such as increased independent living or engagement in education or employment.

Only one previous study has considered qualitatively the impact of adapted DBT for people with ID/D (Hall et al., 2013). Future qualitative research could explore
participant’s thoughts on which elements of the programme are most helpful, whether the programme is appropriately adapted and how it could be improved. This data would allow people with ID/D to be involved in the development of future services, and would allow them express information that may not have been captured through other methodologies.

The research presented in papers 2b and 2c has shown that PCP techniques, specifically repertory grids, can be used with adults with ID/D to measure change in an idiosyncratic and collaborative way. Future research could use this methodology to measure changes following other interventions for adults with ID/D to contribute to the evidence base regarding personal construing amongst individuals with ID/D.

**Clinical Implications**

The findings of the systematic review and the empirical papers provide information for clinicians that adapted DBT is an appropriate evidence-based intervention for adults with ID/D, and should be considered for clients who present with difficulties with emotional regulation, distress tolerance and interpersonal effectiveness.

To date there are inconsistencies in the adaptations that have been made to DBT by individual services. The development of a manualised approach would allow services to provide the therapy in a more consistent manner, and this approach could be further evaluated to ensure that practice remains evidence-based. Clinicians need to ensure that adaptations to the DBT model remain adherent to the DBT programme developed by (Linehan, 1993a), and a manualised approach could help to do this.

The findings of papers 2b and 2c indicate that repertory grid technique can be used by clinicians for adults with ID/D. The technique can be used as part of clinician’s
assessment process for DBT and other psychological interventions, and it would provide meaningful data such as information about self-esteem and the presence of implicative dilemmas that could potentially provide information regarding obstacles to engagement in therapy and psychological change. This information can be integrated into clinician’s formulations and can be used to generate hypotheses that can be tested as part of therapy.

Thesis Overview

The process of completing this research has allowed the author to develop both as a researcher and a clinician. The experience of conducting research with adults with ID/D within a clinical setting was challenging at times and required the author to be flexible in their approaches. The author felt privileged that adults with ID/D were enthusiastic about participating in the study, were willing to contribute their time and were insightful and open enough to share their experiences.

The author developed as a researcher throughout the study, and furthered their understanding of the research process within clinical settings. The author was particularly challenged by learning a new methodology and method of analysis, and the conducting of a mixed methods study that at times felt disjointed. The author noted how rich the data elicited using repertory grid data was, and could see its applicability as an assessment tool in clinical practice.

Dissemination

The papers will be submitted to the Journal of Applied Research in Intellectual Disabilities, Clinical Psychology and Psychotherapy and the British Journal of Learning Disabilities. The systematic review was presented as a poster presentation.
at the 13th UK Intellectual Disability Research Conference (‘Seattle Club’) at the University of South Wales (McNair, McLaughlin, Woodrow, & Hare, 2013).

Several participants asked about the findings of the study, and the researcher is going to provide easy-read summaries of the research for those who requested it. The researcher is also going to present an overview of the findings to the department who hosted the research.
References


Appendices
Appendix 1: Author guidelines for Journal of Applied Research in Intellectual Disabilities
Crosscheck
The journal to which you are submitting your manuscript employs a plagiarism detection system. By submitting your manuscript to this journal you accept that your manuscript may be screened for plagiarism against previously published works.

1. GENERAL

The Journal of Applied Research in Intellectual Disabilities is an international, peer-reviewed journal which draws together findings derived from original applied research in intellectual disabilities. The journal is an important forum for the dissemination of ideas to promote valued lifestyles for people with intellectual disabilities. Reports on research from the UK and overseas by authors from all relevant professional disciplines, it is aimed at an international, multidisciplinary readership.

The topics it covers include community living, quality of life, challenging behaviour, communication, sexuality, medication, ageing, supported employment, family issues, mental health, physical health, autism, economic issues, social networks, stress, staff training, epidemiology and service provision. Theoretical papers are also considered provided the implications of therapeutic action or enhancing quality of life are clear. Both quantitative and qualitative methodologies are welcomed. All original and review articles continue to undergo a rigorous, peer-refereeing process.

Please read the instructions below carefully for details on submission of manuscripts, the journal's requirements and standards as well as information concerning the procedure after a manuscript has been accepted for publication. Authors are encouraged to visit http://authorservices.wiley.com/bauthor for further information on the preparation and submission of articles.

2. ETHICAL GUIDELINES

Acceptance of papers is based on the understanding that authors have treated research participants with respect and dignity throughout. Please see Section 2.2 below.

2.1 Authorship and Acknowledgements

Authorship: Authors submitting a paper do so on the understanding that the manuscript has been read and approved by all authors and that all authors agree to the submission of the manuscript to the journal. All named authors must have made a significant contribution to the conception and design and/or analysis and interpretation of the data and/or the drafting of the paper and all authors must have critically reviewed its content and have approved the final version submitted for publication.

Participation solely in the acquisition of funding or the collection of data does not constitute authorship.

It is a requirement that all authors have been accredited as appropriate under submission of the manuscript. Contributors do not qualify as authors should be mentioned under Acknowledgements.

Acknowledgements: Under Acknowledgements please specify contributors to the article other than the authors accredited. Please also include specifications of the source of funding for the study and any potential conflict of interest if appropriate. Suppliers of materials should be named and their location (town, state/county, country) included.

2.2 Ethical Approvals

Research involving human participants will only be published if such research has been conducted in full accordance with ethical principles, including the World Medical Association Declaration of Helsinki (version 2002; www.wma.net) and the additional requirements, if any, of the country in which the research has been carried out. Manuscripts must be accompanied by a statement that the research was undertaken with the understanding and written consent of each participant (or the participant's representative, if they lack capacity), and according to the above mentioned principles. A statement regarding the fact that the study has been independently reviewed and approved by an ethical board should also be included.

All studies using human participants should include an explicit statement in the Material and Methods section identifying which research ethics committee approval for each study, if applicable. Editors reserve the right to reject papers if there is doubt as to whether appropriate procedures have been used.

Ethics of investigation: Papers not in agreement with the guidelines of the Helsinki Declaration as revised in 1975 will not be accepted for publication.

2.3 Clinical Trials

Clinical trials should be reported using the CONSORT guidelines available at www.consort-statement.org. A CONSORT checklist should also be included in the submission material (www.consort-statement.org).

The Journal of Applied Research in Intellectual Disabilities encourages authors submitting manuscripts reporting from a clinical trial to register the trial in any of the following free, public trials registers: www.clinicaltrials.gov, www.isrctn.org. The clinical trial registration number and name of the trial register will then be published with the paper.

2.4 Conflict of Interest and Source of Funding
absence of conflict of interest) will be published under a separate heading.

The Journal of Applied Research in Intellectual Disabilities requires that sources of institutional, private and corporate financial sponsorship are clearly acknowledged and any potential conflict of interest noted. As of 1st March 2007, this information is a requirement for all manuscripts submitted to the journal and will be published in a highlig box on the title page of the article. Please include this information under the separate headings of 'Source of Funding' and 'Conflicts of Interest' at the end of the manuscript.

If the author does not include a conflict of interest statement in the manuscript, then the following statement will be included default: "No conflict of interest has been declared.

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Submissions are now made online using ScholarOne Manuscripts (formerly Manuscript Central). To submit to the journal visit http://mc.manuscriptcentral.com/jaid. If this is the first time you have used the system you will be asked to register by clicking on 'create an account'. Full instructions on making your submission are provided. You should receive an acknowledgement within a few minutes. Thereafter, the system will keep you informed of the process of your submission through refereeing and revisions that are required and a final decision.

4.1 Manuscript Files Accepted

Manuscripts should be uploaded as Word (.doc) or Rich Text Format (.rtf) files (not write-protected) plus separate figure file GIF, JPEG, PICT or Bitmap files are acceptable for submission, but only high-resolution TIFF or EPS files are suitable for print.

To allow double-blinded review, please upload your manuscript and title page as separate files.
2. Figure files under the file designation 'figures'.
3. Title page which should include title, authors (including corresponding author contact details), acknowledgements and conflict of interest statement where applicable, should be uploaded under the file designation 'title page'.

All documents uploaded under the file designation 'title page' will not be viewable in the HTML and PDF format, you are asked to review at the end of the submission process. The files viewable in the HTML and PDF format are the files available to the reviewer in the review process.

Please note that any manuscripts uploaded as 'Word 2007 (.docx)' will be automatically rejected. Please save any doc/x files for doc before uploading.

4.2 Blinded Review
All articles submitted to the journal are assessed by at least two anonymous reviewers with expertise in that field. The Editors reserve the right to edit any contribution to ensure that it conforms with the requirements of the journal.

5. MANUSCRIPT TYPES ACCEPTED

Original Articles, Review Articles, Brief Reports, Book Reviews, and Letters to the Editor are accepted. Theoretical Papers are also considered provided that the implications for therapeutic action or enhancing quality of life are clear. Both quantitative and qualitative methodologies are welcomed. Articles are accepted for publication only at the discretion of the Editor. Articles should not exceed 7000 words. Brief Reports should not normally exceed 2000 words. Submissions for the Letters to the Editor section should be no more than 750 words in length.

6. MANUSCRIPT FORMAT AND STRUCTURE

6.1 Format

Language: The language of publication is English. Authors for whom English is a second language must have their manuscripts professionally edited by an English-speaking person before submission to ensure the English is of high quality. It is preferred that manuscripts are professionally edited. A list of independent suppliers of editing services can be found at: http://authorservices.wiley.com/author/english_language.asp. All services are paid for and arranged by the author, and the Editors do not guarantee acceptance or preference for publication.

6.2 Structure

All manuscripts submitted to the Journal of Applied Research in Intellectual Disabilities should include:

Cover Page: A cover page should contain only the title, thereby facilitating anonymous reviewing. The authors' details should be supplied on a separate page and the author or correspondence should be identified clearly, along with full contact details, including e-mail address.

Running Title: A short title of not more than fifty characters, including spaces, should be provided.

Keywords: Up to six key words to aid indexing should also be provided.

Main Text: All papers should be divided into a structured abstract (150 words) and the main text with appropriate sub head structures. A structured abstract should be given at the beginning of each article, incorporating the following headings: Background, Materials and Methods, Results, Conclusions. These should outline the questions investigated, the design, essential findings, and main conclusions of the study. The text should then proceed through sections of Introduction, Materials and Methods, Results and Discussion, and finally Tables. Figures should be submitted as a separate file.

Style: Manuscripts should be double-spaced with a wide margin and double spaced. Include all parts of the text of the paper in a single file, but do not embed figures. Please note the following points which will help us to process your manuscript successfully:

- Include all figure legends, and tables with their legends if available.
- Do not use the carriage return (enter) at the end of lines within a paragraph.
- Turn the hyphenation option off.
- In the cover email, specify any special characters used to represent non-keyboard characters.
- Take care not to use (ell) for 1 (one), O (capital O) for 0 (zero) or (German eszett) for (beta).
- Use a tab, not spaces, to separate data points in tables.
- If you use a table editor function, ensure that each data point is contained within a unique cell, i.e., do not use carriage return within cells.

Spelling should conform to The Concise Oxford Dictionary of Current English and units of measurements, symbols and abbreviations with those in Units, Symbols and Abbreviations (1977) published and supplied by the Royal Society of Medicine. This specifies the use of SI units.

6.3 References

The reference list should be in alphabetic order as follows:


Journal titles should be in full. References in text with more than two authors should be abbreviated to (Brown et al. 1977).

Authors are responsible for the accuracy of their references.

We recommend the use of a tool such as EndNote or Reference Manager for reference management and formatting. EndNote reference styles can be searched for here:
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Reference Manager reference styles can be searched for here:
http://www.refman.com/supportrefmanstyles.asp

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If an author cites anything which does not have a DOI they run the risk of the cited material not being traceable.

6.4 Tables, Figures and Figure Legends

Tables should include only essential data. Each table must be typewritten on a separate sheet and should be numbered consecutively with Arabic numerals, e.g. Table 1, and given a short caption.

Figures should be referred to in the text as Figures using Arabic numbers, e.g. Fig. 1, Fig. 2, etc. in order of appearance. Figure should be clearly labelled with the name of the first author, and the appropriate number. Each figure should have a separate legend; these should be grouped on a separate page at the end of the manuscript. All symbols and abbreviations should be clearly explained. In the full-sized online edition of the journal, figure legends may be truncated in abbreviated links to the full screen version. Therefore, the first 100 characters of any legend should inform the reader of key aspects of the figure.

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Although low quality images are adequate for review purposes, print publication requires high quality images to prevent the product being blurry or fuzzy. Submit EPS (Encapsulated PostScript) files only. MS PowerPoint and Word Graphics are unsuitable for printed pictures. Do not use pixel-oriented programmes. Scans (TIFF only) should have a resolution of at least 300 dpi (halftone) or 600 to 1200 dpi (line drawings) in relation to the reproduction size. Please submit data files in black and white or submit a Colour Work Agreement Form. EPS files should be saved with fonts embedded (and a TIFF preview if possible).

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http://www.adobe.com/products/acrobatreadstep2.html

This will enable the file to be opened, read on screen, and printed out in order for any corrections to be added. Further instructions will be sent with the proof. Proofs will be posted if no e-mail address is available; in your absence, please arrange for a colleague to access your e-mail to retrieve the proofs.

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Appendix 2: Quality assessments using the Evaluative Method for Determining EBP (Reichow, 2011)
### Participant characteristics (PART)
A high (H) quality rating is awarded to a study that meets the following criteria:

1. Age and gender are provided for all Participants (mean age is acceptable).
2. All participants’ diagnoses are operationalized by including the specific diagnosis and diagnostic instrument (acceptable instruments include ADOS, ADI-R, CARS, DSM-IV, and ICD-10) used to make the diagnosis or an operational definition of behaviors and symptoms of the participants.
3. Information on the characteristics of the interventionist are provided (the ability to determine who did the intervention is minimal a criterion) and information on any secondary participants (e.g., peers) is provided.
4. If a study provides standardized test scores, the measures used to obtain those scores are indicated.

An acceptable (A) quality rating is awarded to a study that meets criteria 1, 3 and 4. A study that does not meet all of criteria 1, 3, and 4 is of unacceptable quality and is awarded a U rating.

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### Independent variable (IV) (e.g., intervention)
An H rating is awarded to a study that defines independent variables with replicable precision (i.e., one could reproduce the intervention given the description provided). If a manual is used, the study passes this criterion. An A rating is awarded to a study that defines many elements of the independent variable but omits specific details. A U rating is awarded to a study that does not sufficiently define the independent variables.

H A A A H A A A

### Comparison condition (CC)
An H rating is awarded to a study that defines the conditions for the comparison group with Replicable precision, including a description of any other interventions participants receive. An A rating is awarded to a study that vaguely describes the conditions for the comparison group; information on other interventions may not be reported. A U rating is awarded to a study that does not report the conditions for the comparison group or has no control or

U U U U A U U
comparison group.

**Dependent variable (DV) or outcome measure**
An H rating is awarded to a study that meets the following criteria:
- The variables are defined with operational precision.
- The details necessary to replicate the measures are provided.
- The measures are linked to the dependent variables.
- The measurement data is collected at appropriate times during the study for the analysis being conducted.

An A rating is awarded to a study that meets three of the four criteria. A U rating is awarded to a study that meets fewer criteria.

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**Link between research question and data analysis (LRQ)**
An H rating is awarded to a study in which data analysis is strongly linked to the research questions and uses correct units of measure (i.e., child level, teacher level, etc.) on all variables. An A rating is awarded to a study in which data analysis is poorly linked to the research questions but uses correct units for a majority of the outcome measures. A U rating is awarded to a study in which data analysis is linked weakly or not at all to the research questions and uses the correct unit for only a minority of the outcome measures.

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**Statistical analysis (STAT)**
An H rating is awarded to a study in which proper statistical analyses were conducted with an adequate power and sample size \( n > 10 \) for each statistical measure. An A rating is awarded to a study in which proper statistical analyses were conducted for at least 75% of the outcome measures or in which proper statistical analyses were conducted on 100% of outcome measures but with inadequate power or a small sample size. A U rating is awarded to a study in which statistical analysis was not done correctly, the sample size was too small or the power was inadequate.

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**Total**
- **Strong= All H and ≥4secondary indicators**
- **Adequate= ≥4 H, 0 U and ≥2 secondary indicators**
- **Weak= <4 H and <2 secondary indicators**

| H=2 | H=3 | H=0 | H=0 | H=1 | H=1 | H=3 |
| A=0 | A=1 | A=3 | A=3 | A=2 | A=2 | A=1 |
| U=4 | U=2 | U=3 | U=3 | U=3 | U=3 | U=2 |

**Classification**
- Weak

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162
### Secondary quality indicators

These indicators are rated on a dichotomous scale (there either is, or is not, evidence of the indicator).

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<tr>
<td>This indicator is positive if participants are assigned to groups using a random assignment procedure.</td>
<td>X</td>
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<tr>
<td>This indicator is positive if IOA is collected across all conditions, raters, and participants with reliability &gt;.80 (Kappa &gt;.60) or psychometric properties of standardized tests are reported and are &gt;.70 agreement with a Kappa &gt;.40.</td>
<td>X</td>
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<tr>
<td>This indicator is positive if raters are blind to the treatment condition of the participants.</td>
<td>X</td>
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<td>This indicator is positive if treatment or procedural fidelity is continuously assessed across participants, conditions, and implementers, and if applicable, has measurement statistics &gt;.80.</td>
<td>X</td>
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<td>This indicator is positive if articulation is comparable (does not differ between groups by more than 25%) across conditions and less than 30% at the final outcome measure.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>√</td>
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<td>This indicator is positive if outcome measures are collected after the final data collection to assess generalization or maintenance.</td>
<td>√</td>
<td>X</td>
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<td>This indicator is positive if effect sizes are reported for at least 75% of the outcome measures and are &gt;.40.</td>
<td>X</td>
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<td>This indicator is positive if the study contains at least four of the following features:</td>
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<td>√</td>
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<tr>
<td>- Socially important DVs (i.e., society would value the changes in outcome of the study)</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
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</table>
| - Time- and cost-effective intervention (i.e., the ends justify the...
- Comparisons between individuals with and without disabilities
- A behavioral change that is large enough for practical value (i.e., it is clinically significant)
- Consumers who are satisfied with the results
- IV manipulation by people who typically come into contact with the participant
- A natural context
Appendix 3: Approval letters

Research Ethics Committee
University Sub Committee
University Sponsor Confirmation
Research and Design
15 February 2013

Miss Louisa McNair
Division of Clinical Psychology
Zochonis Building, Brunswick Street
University of Manchester
M13 9PL

Dear Miss McNair

Study title: Alterations in personal constructs following Dialectical Behaviour Therapy (DBT) for an intellectually disabled population

REC reference: 13/NW/0071
Protocol number: 5
IRAS project ID: 115822

Thank you for your letter of 11 February 2013, responding to the Committee’s request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator, Miss Shehnaz Ishaq, nrescommittee.northwest-gmwest@nhs.net

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

A Research Ethics Committee established by the Health Research Authority
Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<table>
<thead>
<tr>
<th>Document</th>
<th>Version</th>
<th>Date</th>
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<tr>
<td>Governing Letter</td>
<td></td>
<td>09 February 2013</td>
</tr>
<tr>
<td>Evidence of insurance or indemnity</td>
<td>University of Manchester</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>GP/Consultant Information Sheets</td>
<td>1</td>
<td>07 December 2012</td>
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<tr>
<td>Interview Schedules/Topic Guides</td>
<td>4 - Repertory Grid Schedule</td>
<td>05 December 2012</td>
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<tr>
<td>Interview Schedules/Topic Guides</td>
<td>2 - Personal Questionnaire Schedule</td>
<td>25 November 2012</td>
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<tr>
<td>Investigator CV</td>
<td>Mrs Louisa McNair</td>
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<tr>
<td>Investigator CV</td>
<td>Dr Dougal Julian Hare</td>
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<tr>
<td>Investigator CV</td>
<td>Dr John Fox</td>
<td></td>
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<tr>
<td>Letter from Sponsor</td>
<td>University of Manchester</td>
<td>11 January 2013</td>
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<tr>
<td>Letter from Statistician</td>
<td></td>
<td>21 November 2012</td>
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<tr>
<td>Other: Distress Protocol</td>
<td>2</td>
<td>12 December 2012</td>
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<tr>
<td>Other: Letter from head of service</td>
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<td>25 September 2012</td>
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<tr>
<td>Participant Consent Form: Clean</td>
<td>7</td>
<td>08 February 2013</td>
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<tr>
<td>Participant Consent Form: Changes Highlighted</td>
<td>7</td>
<td>08 February 2013</td>
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<tr>
<td>Participant Information Sheet: Changes Highlighted</td>
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<tr>
<td>Participant Information Sheet: Clean</td>
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<td>08 February 2013</td>
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<tr>
<td>Participant Information Sheet: Summary Information Sheet</td>
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<td>08 February 2013</td>
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<td>Protocol</td>
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<td>11 January 2013</td>
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Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document “After ethical review – guidance for researchers” gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

13/NW/0071 Please quote this number on all correspondence

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

With the Committee's best wishes for the success of this project.

Yours sincerely

Signed on behalf of:
Dr Lorraine Lighton
Chair

A Research Ethics Committee established by the Health Research Authority
Email: prescommittee.northwest-gmwest@nhs.net

Enclosures: “After ethical review – guidance for researchers”

Copy to: Ms Catherine Barrow – R&D Department, University of Manchester
Ms Tina Stanier, 5 Boroughs Partnership NHS Trust
Dr Dougal Hare – University of Manchester
Dr John Fox – University of Manchester

A Research Ethics Committee established by the Health Research Authority
Dear Louisa

Re: Research Sub-Committee – 15th October 2012

Thank you for presenting your Large Scale Research Proposal to the Research Sub-Committee Meeting on 15th October 2012. You have proposed examining a very interesting issue and in order to develop your proposal further, the Sub-Committee requests that you make the following changes to your study:

- The repertory grid analysis by itself constitutes a ClinPsyD LSRP and this should be emphasised in the proposal.
- Remove the MAST and the LANTIS or emphasise that these are essentially demographic variables.
- Consider what the study will demonstrate with regard to using DBT in this population (i.e., not necessarily an effect of DBT per se so you should consider revising the title of the study).
- Identify the IQ and service utilisation data as the primary outcome measures.
- Could the pre- and post-measures (GDS/GAS/NAS-P1) be completed more frequently so as to facilitate a case series design?
- Plan statistical analysis around clinically significant changes.
- Revise the contingency plan to incorporate a minimum of N=6.
- It might be worth checking whether all participants lose capacity to consent in the course of the study and that their data can be then used given the approval of an appointed consultant.

The Committee would like to see a revised proposal addressing these points, along with a detailed letter outlining the changes you have made using the above points to structure your letter (i.e., repeat the points made above verbatim and address each one by outlining the changes you have made and where they can be found in the proposal, ideally highlight those in the proposal via bold or underline).

In order for the Committee to evaluate your changes, please submit your modified proposal via email to Emily Marner (emily.marner@manchester.ac.uk) no later than 4pm on Monday 12th November in time to be considered at the Sub-Committee meeting on 15th November 2012.

Thank you again for submitting your protocol to the Committee and we are looking forward to receiving another amended version and discussing it without you in attendance at the next meeting on 19th November 2012.

Yours sincerely,

Dr. Dougal Julian Hare
Senior Lecturer in Clinical Psychology
Panel Chair, Research Sub-Committee
Cc John Fox and Ceri Woodrow
Louisa McNair  
79 Woodhurst Drive  
Standish  
Wigan  
WN6 0RW

29th November 2012

Dear Louisa,

Re: Feedback from Research Sub-committee- 19th November 2012

Thank you for your revised research proposal which was considered by the Research Sub-Committee Meeting on 19th November 2012. The committee were satisfied that the revisions made were appropriate and in accordance with the feedback from the meeting of 15th October 2012. You may now proceed with the research project as set out in your final proposal.

For the purposes of ethical scrutiny by relevant NHS and/or University bodies, this letter may be taken as confirmation that your research proposal has been independently reviewed and that it is considered to meet necessary scientific and methodological standards.

On behalf of the Research Subcommittee, we wish you good luck with your research work.

Yours sincerely

[Signature]

Dr Dougal Hare  
Lecturer in Clinical Psychology  
Panel A Chair, Research Sub-Committee  
Cc John Fox and Ceri Woodrow
To whom it may concern

Role of the Research Sponsor under the Research Governance Framework for Health & Social Care and the Medicines for Human Use (Clinical Trials) Regulations 2004 (SI2004/1031)

I hereby confirm that the University of Manchester would be prepared to accept the role of research sponsor as currently defined in the Research Governance Framework for Health & Social Care Version 2 (DoH 2005) and the Medicines for Human Use (Clinical Trials) Regulations 2004 (SI2004/1031), in relation to the study:

" Alterations in personal constructs following Dialectic Behaviour Therapy (DBT) for an intellectually disabled population"

I have been informed that this study will be led by Dr Dougal Hare of The University of Manchester.

Sponsorship is subject to the following conditions:

1) The lead investigator for the study must be an employee of the University of Manchester. For student research the academic supervisor is considered to be the lead investigator.
2) An appropriate contract must be agreed between the University and the funding body.
3) The research must be reviewed and approved by appropriate ethics, NHS and regulatory bodies and registered in accordance with University insurance requirements.

To enable the sponsor to meet their responsibilities as listed in section 3.8 of the Research Governance Framework, Chief Investigators are asked to adhere to the responsibilities as outlined in section 3.6 of the Framework www.dh.gov.uk/research. In line with this requirement Dr Dougal Hare must ensure that all involved in the research project understand and discharge their responsibilities in accordance with the agreed protocol and any relevant management, ethical and regulatory approvals.

Chief Investigators are also reminded that they must register NHS REC approval with The University of Manchester Research Ethics Office.

If you have any queries about sponsorship of this project then please address them to Professor Nalin Thakker, Associate Vice President for Research Integrity, The University of Manchester, Christie Building, Oxford Road, Manchester M13 9PL, or email research-governance@manchester.ac.uk
Catherine Barrow
Dated: 11/01/13
Head of Faculty Research Office
Faculty of Medical & Human Sciences
Dear Louisa,

Re: Research Governance Decision Letter

Project Reference: Trust ID 283
Project Title: Alterations in personal constructs following DBT for an ID population

Further to your request for research governance approval, we are pleased to inform you that this Trust has approved the study. With regard to your study, we would like you to note that it is required to acknowledge the Trust when publishing your work and this also applies to any posters that maybe produced. The form of acknowledgement should be as described on the 5 Boroughs website. Please note when contacting the Research Office about your study you must always provide the project reference numbers provided above.

Trust research approval covers all locations within the Trust; however, you should ensure you have liaised with and obtained the agreement of individual service/ward managers before commencing your research.

Please take the time to read the attached ‘Information for Researchers – Conditions of Research Governance Approval’ leaflet, which give the conditions that apply when research governance approval has been granted. Please contact the Research Office should you require any further information. You may need this letter as proof of your approval.

We would like to point out that hosting research studies incurs costs for the Trust such as: staff time, usage of rooms, arrangements for governance of research. We can confirm that in this instance we will not charge for these. However we would like
to remind you that Trust costs should be considered and costed at the earliest stage in the development of any future proposals.

May I wish you every success with your research.

Yours sincerely

Anthony Hodgson
Head of Research

cc: Research Governance Sponsor
    Employing Organisation
    Principal Investigator (if applicable)

Enc: Approval Conditions Leaflet V3 11
     Induction & ID Badge Information 13
Appendix 4: Author guidelines for Clinical Psychology and Psychotherapy
MANUSCRIPT SUBMISSION

Clinical Psychology & Psychotherapy operates an online submission and peer review system that allows authors to submit articles online and track their progress via a web interface. Please read the remainder of these instructions to authors and visit http://onlinelibrary.wiley.com/doi/10.1111/j.1475-6773.2011.00730.2012.issue-3/full and navigate to the Clinical Psychology & Psychotherapy online submission site.

IMPORTANT: Please check whether you already have an account in the system before trying to create a new one. If you have reviewed or authored for the journal in the past year it is likely that you will have had an account created.

Pre-submission English-language editing

Authors for whom English is a second language may choose to have their manuscript professionally edited before submission to improve the English. A list of independent suppliers of editing services can be found at http://www.wiley.com/manuscriptcentral.com/pp and navigate to the Clinical Psychology & Psychotherapy online submission site.

All papers must be submitted via the online system.

File types. Preferred formats for the text and tables of your manuscript are.doc,.docx,.rtf,.pdf,.xls,.LaTeX files may be submitted provided that an .eps or .pdf file is provided in addition to the source files. Figures may be provided in .tif or .eps format.

NEW MANUSCRIPT

Non-LaTeXUsers. Upload your manuscript files. At this stage, further source files do not need to be uploaded.

LaTeXUsers. For reviewing purposes you should upload a single.pdf that you have generated from your source files. You use the File Designation 'Main Document' from the dropdown box.

REVISED MANUSCRIPT

Non-LaTeXUsers. Editable source files must be uploaded at this stage. Tables must be on separate pages after the reference list, and not be incorporated into the main text. Figures should be uploaded as separate figure files.

LaTeXUsers. When submitting your revision you must still upload a single.pdf that you have generated from your revised source files. You must use the File Designation 'Main Document' from the dropdown box. In addition you must upload your source files. For all your source files you must use the File Designation 'Supplemental Material not for review'. Previous versions of uploaded documents must be deleted. If your manuscript is accepted for publication we will use the files you upload to typeset your article within a totally digital workflow.

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If your paper is accepted, the author identified as the formal corresponding author for the paper will receive an email prompting them to login into Author Services, where via the Wiley Author Licensing Service (WALS) they will be able to complete the license agreement on behalf of all authors on the paper.

For authors signing the copyright transfer agreement

If the OnlineOpen option is not selected the corresponding author will be presented with the copyright transfer agreement (CTA) to sign. The terms and conditions of the CTA can be previewed in the samples associated with the Copyright FAQ below.

CTA Terms and Conditions

For authors choosing OnlineOpen

If the OnlineOpen option is selected the corresponding author will have a choice of the following Creative Commons License Open Access Agreements (OAA):

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Creative Commons Attribution Non-Commercial-NoDerivs License OAA

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complying with Wellcome Trust and Research Councils UK requirements. For more information on this policy and the Journal’s compliant self-archiving policy please visit: http://www.wiley.com/go/understatement.

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Submission of a manuscript will be held to imply that it contains original unpublished work and is not being submitted for publication elsewhere at the same time.

**Title and Abstract Optimization Information.** As more research is read online, the electronic version of articles becomes more important. In a move to improve search engine rankings for individual articles and increase readership and future citations to Clinical Psychology & Psychotherapy at the same time please visit Optimizing Your Abstract for Search Engine Guidelines on the preparation of keywords and descriptive titles.

**Manuscript style.** The language of the journal is (British) English. All submissions must have a title, be printed on one side of A4 paper with numbered pages, be double-line spaced and have a 3cm wide margin all around. Illustrations and tables must be printed on separate sheets, and not incorporated into the text.

**MANUSCRIPT STYLE**

The language of the journal is English. 12-point type in one of the standard fonts: Times, Helvetica, or Courier is preferred, not necessary to double-line space your manuscript. Tables must be on separate pages after the reference list, and not be incorporated into the main text. Figures should be uploaded as separate files.

- During the submission process you must enter the full title, short title of up to 70 characters and names and affiliations of all authors. Give the full address, including email, telephone and fax, of the author who is to check the proofs.
- Include the name(s) of any sponsor(s) of the research contained in the paper, along with grant number(s).
- Enter an abstract of up to 250 words for all articles (except book reviews). An abstract is a concise summary of the whole paper, not just the conclusions, and is understandable without reference to the rest of the paper. It should contain no citation to other published work.
- All articles should include a Key Practitioner Message — 3-5 bullet points summarizing the relevance of the article to practice.
- Include up to six keywords that describe your paper for indexing purposes.

**Research Articles:** Substantial articles making a significant theoretical or empirical contribution.

**Reviews:** Articles providing comprehensive reviews or meta-analyses with an emphasis on clinically relevant studies.

**Assessments:** Articles reporting useful information and data about new or existing measures.

**Practitioner Reports:** Shorter articles that typically contain interesting clinical material.

**Book Reviews:** Published on invitation only. Critical summaries of recent books that are of general interest to readers of the journal.

**Reference style.** The APA system of citing sources indicates the author’s last name and the date. In parentheses, within the text of the paper.

A. A typical citation of an entire work consists of the author’s name and the year of publication:

Example: Charlotte and Emily Bronte were polar opposites, not only in their personalities but in their sources of inspiration writing (Taylor, 1990). Use the last name only in both first and subsequent citations, except when there is more than one author with the same last name. In that case, use the last name and the first initial.

B. If the author is named in the text, only the year is cited.

Example: According to Irene Taylor (1990), the personalities of Charlotte...”

C. If both the name of the author and the date are used in the text, parenthetical reference is not necessary.

Example: In a 1989 article, Gould explains Darwin's most successful...

D. Specific citations of pages or chapters follow the year.

Example: Emily Bronte “expressed increasing hostility for the world of human relationships, whether sexual or social” (Taylor, 1988, p. 11).

E. When the reference is to a work by two authors, cite both names each time the reference appears.
Acocik and Thornhill (1983) also demonstrate... 

F. When the reference is to a work by three to five authors, cite all the authors the first time the reference appears. In a subsequent reference, use the first author’s last name followed by et al. (meaning “and others”).

Example: Patterns of byzantine intrigue have long plagued the internal politics of community college administration in Texas (Douglas et al., 1997). When the reference is to a work by six or more authors, use only the first author’s name followed by et al. in the first and all subsequent references. The only exceptions to this rule are when some confusion might result because similar names or the same author being cited. In that case, cite enough authors so that the distinction is clear.

G. When the reference is to a work by a corporate author, use the name of the organization as the author.

Example: Retired officers retain access to all of the university's educational and recreational facilities (Columbia University, 1987, p. 54).

H. Personal letters, telephone calls, and other material that cannot be retrieved are not listed in References but are cited in the text.

Example: Jesse Moore’s (telephone conversation, April 17, 1989) confirmed that the ideas...

I. Parenthetical references may mention more than one work, particularly when ideas have been summarized after drawing from several sources. Multiple citations should be arranged as follows.

Examples:
- List two or more works by the same author in order of the date of publication: (Gould, 1987, 1989).
- Differentiate works by the same author and with the same publication date by adding an identifying letter to each date: (Bloom, 1974a, 1974b).
- List works by different authors in alphabetical order by last name, and use semicolons to separate the references: (Go: 1989; Smith, 1983; Tutwiler, 1989).

All references must be complete and accurate. Where possible the DOI for the reference should be included at the end of the reference. Online citations should include date of access. If necessary, cite unpublished or personal work in the text but do not include it in the reference list. References should be listed in the following style:

Journal Article

Book

Book with More than One Author


The abbreviation et al. is not used in the reference list, regardless of the number of authors, although it can be used in the citation of material with three to five authors (after the initial citation, when all are listed) and in all parenthetical citations of material with six or more authors.

Web Document on University Program or Department Web Site

Stand-alone Web Document (no date)

Journal Article from Database

Abstract from Secondary Database
Article or Chapter in an Edited Book


*The Digital Object Identifier (DOI) is an identification system for intellectual property in the digital environment. Developed by International DOI Foundation on behalf of the publishing industry, its goals are to provide a framework for managing intellectual content, link customers with publishers, facilitate electronic commerce, and enable automated copyright management.

Illustrations. Upload each figure as a separate file in either .tif or .eps format, the figure number and the top of the figure indicated. Compound figures e.g. 1a, b, c should be uploaded as one figure. Grey shading and hatching are not acceptable. Lettering must be of a reasonable size that would still be clearly legible upon reduction, and consistent within each figure set of figures. Where a key to symbols is required, please include this in the artwork itself, not in the figure legend. All illustrations must be supplied at the correct resolution:

- Black and white and colour photos - 300 dpi
- Graphs, drawings, etc - 600 dpi preferred; 500 dpi minimum
- Combinations of photos and drawings (black and white and colour) - 500 dpi

The cost of printing colour illustrations in the journal will be charged to the author. The cost is approximately £700 per page. Colour illustrations are supplied electronically in either TIFF or EPS format; they may be used in the PDF of the article at no cost to the author, even if this illustration was printed in black and white in the journal. The PDF will appear on the Wiley Online Library site.

POST ACCEPTANCE

Further information. For accepted manuscripts the publisher will supply proofs to the corresponding author prior to publication. This stage is to be used only to correct errors that may have been introduced during the production process. Prompt return of the corrected proofs, preferably within two days of receipt, will minimise the risk of the paper being held over to a later issue. Once your article is published online, no further amendments can be made. Free access to the final PDF offprint of your article will be available via author services only. Please therefore sign up for author services if you would like to access your article PDF offprint and enjoy the many other benefits the service offers.

Author Resources. Manuscript now accepted for publication?

If so, visit our suite of tools and services for authors and sign up for:

- Article Tracking
- E-mail Publication Alerts
- Personalization Tools

Cite EarlyView articles. To link to an article from the author's homepage, take the DOI (digital object identifier) and append "http://dx.doi.org/" as per following example:

Appendix 5: Summary Information Sheet
Alterations in personal constructs following DBT
Summary Information Sheet

My name is Louisa. I am doing some research about DBT, and would like to talk to you.

If you agree, Louisa will talk before you start DBT. A member of staff can also be there if you like. Louisa will ask you about yourself and other people you know. It will take about an hour.

Louisa will speak to you again after you have finished DBT.

Louisa will also record information about how you are doing from your therapy notes.

Taking part is up to you.
If you do take part, you can stop at any time. You don’t have to give a reason.

Everything you tell Louisa will be kept private, unless Louisa is worried about you or someone else.
Louisa won’t use your real name in anything that is written.

If you want to take part, or if you have any questions or would like to know more:
- Speak to your DBT therapist
- or you can speak to Louisa
Appendix 6: Participant Information Sheet and Consent Form
**Alterations in personal constructs following DBT**

**Participant Information Sheet**

My name is Louisa. I am asking if you would like to take part in a research study. Please take time to read or listen to the following information carefully. We will talk about it afterwards.

Ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

---

**What is the study about??**

The study will look at Dialectical Behaviour Therapy (DBT) for people with learning disabilities.

DBT includes group and one-to-one therapy, and telephone support. It aims to help people learn how to control their feelings, communicate with others, manage when they are distressed and be more self-aware.

We are interested in understanding how people’s views of themselves and other people changes after going to the DBT skills group. We also want to know if the group was useful.

---

**Why have I been chosen?**

You have been asked to take part because you are due to start a DBT skills group at the Hazelmere Unit, Leigh Infirmary.

---

**Do I have to take part?**

**NO. Taking part is up to you.**

If you don’t want to take part, that is ok. It will not change anything about the treatment you get at the Hazelmere Unit.

If you do decide to take part you will be given this information sheet to keep and be asked to sign a form to say you understand it and agree to take part. You will also be given a copy of the signed consent form to keep.

If you decide to take part, you can stop at any time and don’t have to give a reason.
The study has several parts:

- Before you start DBT you will meet with Louisa who will ask you some questions about how you view yourself and other people. This will take about an hour. This will be repeated after the DBT skills group to see if there have been any changes.
- During your individual DBT sessions, you will talk about your goals. If you agree to take part, Louisa will have access to this information.
- Louisa is interested to see how people use services during DBT (for example, going to A&E, incidents of self-harm). If you agree to take part, Louisa will access your electronic patient records (EPR) to record this.

If you want to take part, please speak to one of the DBT team. They will arrange for Louisa to meet with you so that you ask any questions about the study. If you want to go ahead, she will arrange a time and place that is convenient to you. Meetings will take place at the Hazelmere Unit, Leigh Infirmary. A member of staff can be present if you would find it helpful.

At the meeting, Louisa will ask you about yourself and other people you know and will make notes using pen and paper. This will be done again when you have finished DBT sessions.

It is unlikely to benefit you directly, but the study will add to our understanding of DBT for people with learning disabilities, including whether it is helpful and when changes occur.

The only risk is that you may become emotional or upset when you talk about your thoughts about yourself and other people.
Louisa will tell the DBT therapists that you are taking part. All information that is collected about you won’t be shared with anyone else and will be kept safe, unless Louisa thinks that you or someone else is at risk.

When the study is written up Louisa won’t use your real name, so no one will know who you are.

You do not have to take part in this study. If you have agreed to take part, you can stop at any time without giving a reason. If you stop taking part it won’t change your psychology sessions.

If you do change your mind, Louisa will ask if she can use the information she already has. If you stop being able to understand the research, if you can’t remember the information, weigh up the pro’s and con’s or tell people whether you still want to take part, you will be taken out of the study, but any information already collected with your permission with be kept and used in the study.

If you have any concerns about anything to do with study, you should ask to speak to Louisa who will do her best to answer your questions. If she is unable to help or you wish to make a complaint about the study, please contact a University Research Practice and Governance Co-ordinator on 0161 2757583 or 0161 2758093 or email research-governance@manchester.ac.uk

If you want to ask any questions you can contact me:

Louisa McNair, Trainee Clinical Psychologist
Division of Clinical Psychology
2nd Floor, Zochonis Building
University of Manchester
Brunswick Street
Manchester M13 9PL
louisa.mcnaire@manchester.ac.uk
01942 264635
Alterations in personal constructs following DBT

Consent Form

Chief Investigator: Louisa McNair, Trainee Clinical Psychologist
Contact details: Division of Clinical Psychology
2nd Floor, Zochonis Building
University of Manchester
Brunswick Street
Manchester M13 9PL
Email: louisa.mcnaire@manchester.ac.uk
Tel: 01942 264635

Please initial box:

1. I have read and understood the information sheet. Anything I didn’t understand has been talked about. Any questions I had have been answered. [ ]

2. I agree to take part in the above study. The study includes:
   • Meeting with Louisa to answer some questions about how I see myself and other people. I will do this before and after the DBT skills group. [ ]
   • Allowing Louisa to have information about how I am doing in the group and whether I am meeting my goals. [ ]
   • Allow Louisa to access my electronic patient records to get information on how often I use services (for example, attendance at A&E, incidents of self-harm). Louisa will only do this whilst I am attending the DBT skills group. [ ]

Page 1 of 2
One copy to be kept by the participant and one copy to be kept by the researcher
3. I understand that taking part is my choice. I don’t have to take part and I can stop at any time. I understand that I do not have to give a reason for changing my mind. If I stop doing this study, it won’t change my psychology sessions. It won’t change my medical care. It won’t change my legal rights.

4. I understand that Louisa will tell the DBT therapists that I am taking part. I understand that any information I give will be kept safe. It will not be shared with anyone, unless Louisa thinks that I am at risk or she thinks that someone else is at risk. Also, reports and publications won’t use my real name. No one will know who I am from the information in reports.

5. I understand that if I stop being able to understand the research, if I can’t remember the information, weigh up the pro’s and con’s or tell people whether I want to continue, I will be taken out of the study. Any information already collected with my permission will be kept and used in the study.

6. I understand that sections of data collected during the study may be looked at by responsible individuals from the University of Manchester, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in the study. I give permission for these people to have access to this data.

<table>
<thead>
<tr>
<th>Name of participant</th>
<th>Date</th>
<th>Signature</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name of researcher</th>
<th>Date</th>
<th>Signature</th>
</tr>
</thead>
</table>

Page 2 of 2

One copy to be kept by the participant and one copy to be kept by the researcher
Appendix 7: Repertory Grid Recording Sheet
<table>
<thead>
<tr>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initials:</td>
</tr>
</tbody>
</table>

Page 1 of 1
Appendix 8: Author guidelines for British Journal of Learning Disabilities
INSTRUCTIONS FOR AUTHORS

The journal to which you are submitting your manuscript employs a plagiarism detection system. By submitting your manuscript to this journal, you accept that your manuscript may be screened for plagiarism against previously published works.

1. GENERAL
   Aims and Scope: British Journal of Learning Disabilities is an interdisciplinary international peer-reviewed journal which aims to be the leading journal in the learning disability field. It is the official Journal of the British Institute of Learning Disabilities. It encompasses contemporary debates and developments in research, policy and practice that are relevant to the field of learning disabilities. It publishes original refereed papers, regular special issues, peer-reviewed papers, regular special issues, peer-reviewed papers, and commentary. The focus of the journal is on practical issues, with current research and research reports. Topics covered include: • Current trends in residential and day-care services; • Inclusive rehabilitation and quality of life; • Education and training; • Health issues; • Employment and occupation; • Rehousing and leisure; • Ethical issues, advocacy and rights; • Family and carers; • Health issues; • Adoption; • Causality; • Management of specific syndromes; • Staff training; • New technology; • Policy, politics and impact; • Leadership and management of learning disabilities; and • Policy and practice.

The British Journal of Learning Disabilities covers all professional groups and all academic disciplines concerned with learning disability. The opinions expressed in articles, whether editorial or otherwise, do not necessarily represent the official view of the British Institute of Learning Disabilities and the Institute accepts no responsibility for the quality of goods or services advertised.

Please read the instructions below for brief details on the Journal's requirements for manuscripts. Please visit the Journal website at: http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1469-3156 for full and updated Author Guidelines and Wiley-Blackwell Publishing's Author Services websites at: http://authorservices.wiley.com/authors for further information on the preparation and submission of articles and figures. Manuscripts in an incorrect format may be returned to the author.

Please note that we also welcome articles by or with people with learning disabilities. Accessible and friendly guidelines are available on request.

2. ETHICAL GUIDELINES
   Acceptance of papers is based on the understanding that authors have treated research participants with respect and dignity throughout. Papers based on original research involving people with learning disabilities must include an ethical statement confirming that the research has taken appropriate steps with regard to access, informed consent, confidentiality and anonymity. Contributors to the article other than the authors accredited should be listed under an Acknowledgements section which should also include, if appropriate, details of any potential conflict of interests.

Copyright Transfer Agreement
   Authors will be required to sign a Copyright Transfer Agreement (CTA) for all papers accepted for publication. Signature of the CTA is a condition of publication and papers will not be published unless a signed form has been received. After submission, authors will retain the right to publish their paper in various media circumstances (please see the CTA for further details).

If your paper is accepted, the author identified as the formal corresponding author for the paper will receive an email prompting them to login into Author Services, where via the Wiley Author Licensing Service (WALS) they will be able to complete the licence agreement on behalf of all authors on the paper.

For authors signing the copyright transfer agreement

If the OnlineOpen option is not selected the corresponding author will be presented with the copyright transfer agreement. If you would like to sign the CTA Terms and Conditions, please visit the website to download the CTA. For authors choosing OnlineOpen

If the OnlineOpen option is selected the corresponding author will have a choice of the following Creative Commons License for Open Access Agreements (OAA):
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To preview the terms and conditions of these open access agreements please visit the Copyright FAQs hosted on Wiley Author Services: http://authorservices.wiley.com/authors/
Councils UK (RCUK) you will be given the opportunity to publish your article under a CC-BY license supporting you in com-
with Welcomes Trust and Research Councils UK requirements. For more information on this policy and the Journal's com-
sel-Free Archiving policy please visit: http://www.wiley.com/go/authorpages/statement. For RCUK and Welcomes Trust authors click on
link below to preview the terms and conditions of this license: Creative Commons Attribution License OAA To preview the tr
and conditions of these open access agreements please visit the Copyright FAQs hosted on Wiley Author Services
http://authorservices.wiley.com/bauthor/lastxCopyright.asp and visit
http://www.wileyopenaccess.com/details/content/12/5694-5677Copyright-License.html.

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holder concerned. It is the author's responsibility to obtain these in writing and provide copies to the Publisher.

3. SUBMISSION OF MANUSCRIPTS

The British Journal of Learning Disabilities has now adopted ScholarOne Manuscripts (formerly known as Manuscript Cent
for online manuscript submission and peer review. The new system brings with it a whole host of benefits including:

- Quick and easy submission
- Administration centralised and reduced
- Significant decrease in peer review times

From now on all submissions to the journal must be submitted online at http://mc.manuscriptcentral.com/BLD. Full instruct
and support are available on the site and a user ID and password can be obtained on the first visit. If you require assistance then click the Get Help Now link which appears at the top right of every Manuscript Central page. If you cannot submit online please contact Thomas Gaston in the Editorial Office by telephone +44 (0)1865 476292 or by e-mail t.gaston@wiley.com.

3.1. Getting Started

- Launch your web browser (supported browsers include Internet Explorer 6 or higher, Netscape 7.0, 7.1, or 7.2, Safari 1
or Firefox 1.0.4) and go to the journal's online Submission Site: http://mc.manuscriptcentral.com/BLD
- Log-in or click the 'Create Account' option if you are a first-time user.
- If you are creating a new account:
  - After clicking on 'Create Account', enter your name and e-mail information and click 'Next'. Your e-mail information is v
  - Enter your institution and address information as appropriate, and then click 'Next'.
  - Enter a user ID and password of your choice (we recommend using your e-mail address as your user ID), and then s y our area of expertise. Click 'Finish'.
- If you have an account, but have forgotten your log details, go to Password Help on the journal's online submission system http://mc.manuscriptcentral.com/BLD and enter your e-mail address. The system will send you an automatic ur ID and a new temporary password.
- Log-in and select Author Center.

3.2. Submitting Your Manuscript

- After you have logged in, click the 'submit a Manuscript' link in the menu bar.
- Enter data and answer questions as appropriate. You may also paste directly from your manuscript and you may upload your pre-prepared covering letter.
- Click the Next button on each screen to save your work and advance to the next screen.
- You are required to upload your files:
  - Click on the 'Browse' button and locate the file on your computer.
  - Select the designation of each file in the drop-down menu next to the 'Browse' button.
  - When you have selected all files you wish to upload, click the 'Upload Files' button.
- Review your submission (in HTML and PDF format) before sending to the Journal.
- Click the 'Submit' button when you are finished reviewing.

3.3. Manuscript Files Accepted

Manuscripts should be uploaded as Word (.doc) or Rich Text Format (.rtf) files (pdf write-protected) plus separate figure flc TIFF, JPEG, PICT or Bitmap files are acceptable for submission, but only high-resolution JPEG files are suitable for printing. The files will be automatically converted to PDF and PDF on upload and will be used for the review process. The file must contain the full manuscript including title page, accessible summary, summary, text, references, tables, and fig legends, but no embedded figures. Figure tags should be included in the file. Manuscripts should be formatted as described in the Author Guidelines below.

3.4. Suspension of Submission Mid-way in the Submission Process

You may suspend a submission at any phase before clicking the 'Submit' button and save it to submit later. The manuscript can then be located under 'Unsubmitted Manuscripts' and you can click on 'Continue Submission' to continue your submit-when you please to.
After submission you will receive an e-mail to confirm receipt of your manuscript. If you do not receive the confirmation e-mail within 24 hours, please check your e-mail address carefully in the system. If the e-mail address is correct, please contact your department. The error may be caused by spam filtering software on your e-mail server. Also, the e-mails should be received by the IT department and our e-mail server (uranus.scholarone.com) to their whitelist.

3.6. Manuscript Status

You can access ScholarOne Manuscripts (formerly known as Manuscript Central) any time to check your 'Author Center' for status of your manuscript. The Journal will inform you by e-mail once a decision has been made.

4. MANUSCRIPT FORMAT AND STRUCTURE

All manuscripts submitted to The British Journal of Learning Disabilities should include: Accessible Summary, Summary, Keywords, Main Text (divided by appropriate subheadings) and References. Articles should be no more than 5,000 words in length including references.

Title Page: This should include: a short title to indicate content with a sub-title if necessary; the full names of all the authors and address(es) of the institution(s) at which the work was carried out (the present addresses of the authors, if different from the above, should appear in a footnote); the name, address, telephone and fax numbers, and email address; the author to whom all correspondence and proofs should be sent; a suggested running title of not more than 50 character including spaces; and up to six keywords to aid indexing.

Accessible Summary: Authors must now include an easy-to-read summary of their papers. This innovation was effective in 2005 and is in the spirit of making research findings more accessible to people with learning disabilities. It should also make scanning the Journal contents easier for all readers. From now on, therefore, authors are asked to:

- Use bullet points (3 or 4 at most) to help summarise the content
- Express ideas in straightforward language
- Say why the research matters to people with learning disabilities.

Summary: should be a comprehensive summary of the contents of the manuscript, of approximately 150 words.

Keywords: these are words which have relevance to the type of paper being submitted, this is for reviewing and citing purposes. You are asked by Manuscript Central to input keywords when submitting a paper, but up to 6 keywords must also be included within the 'main document' underneath the Accessible Summary.

Style

Abbreviations and symbols:
All symbols and abbreviations should be clearly explained. Abbreviations should not be used when they refer to people (e.g. learning disabilities, not LD; developmental disabilities, not DD; intellectual disabilities, not ID). Please also use 'people with learning disabilities' wherever possible, not 'learning disabled people'.

References

The Journal follows the Harvard reference style.

We recommend the use of a tool such as EndNote or Reference Manager for reference management and formatting. EndNote reference styles can be searched for here:

www.endnote.com/support/endnoteReferenceStyles.asp

Reference Manager reference styles can be searched for here:

www.renman.com/support/rmtstyles.asp

Tables, Figures and Figure Legends

Tables should only be used to clarify important points. Tables must, as far as possible, be self-explanatory and should be numbered consecutively with Arabic numerals, e.g. Table 1, Table 2, etc., in order of their appearance in the text.

Figures: All graphs, drawings and photographs are considered figures and should be numbered in sequence with Arabic numerals. Each figure should have a legend and all legends should be typed together on a separate page at the end of the manuscript and numbered correspondingly. All symbols and abbreviations should be clearly explained.

If all or parts of previously published illustrations are used, permission must be obtained from the copyright holder. It is the author's responsibility to obtain these in writing and provide copies to the Publisher.

All figures and artwork must be provided in electronic format. Please save vector graphics (e.g. line artwork) in Encapsulated Postscript Format (EPS) and bitmap files (e.g. halftones) or clinical or in vitro pictures in Tagged Image Format (TIFF). Further information can be obtained at the Journal website http://www.wiley.com/bwjournal.asp?ref=1354-4187 and at Wiley-Blackwell's guidelines for illustrations: http://authors.europe.wiley.com/bauthors/illustration.asp

Colour Charges: It is the policy of the British Journal of Learning Disabilities for authors to pay the full cost for the reproduction of their colour artwork. The Colour Work Agreement form can be downloaded from the website.

Once completed, please return the form (hard copy with original signature) to Customer Services via regular mail to the address...
Appendix 9: Distress Protocol
Alterations in personal constructs following Dialectical Behaviour Therapy (DBT) for an intellectually disabled population

Distress Protocol

This protocol is consistent with the procedures followed by staff in the Specialist Psychological Therapy Service, Hazelmere Unit, Leigh Infirmary

- During the consent process participants will have the limits of confidentiality explained to them. They will be reminded of this at the beginning of all meetings with the researcher who will ensure that participants have a full understanding of confidentiality.

- All research interviews will be conducted at Leigh Infirmary where other mental health professionals will be available for support if required.

- If, during the research interviews, participants indicate that they may be a risk to themselves or others, the researcher will conduct a risk assessment. If the researcher is unsure they will telephone the Mental Health Assessment Team (Tel: 01942 482239) for advice. All participants will have a clinical psychologist from the Specialist Psychological Therapies Service working with them. This clinician will be made aware of any risks identified.

- If the risk is considered to be immediate the researcher will telephone the Mental Health Assessment Team, and if required telephone for an ambulance to transport the participant to Royal Albert Infirmary (Wigan) for assessment.

- If the risk is non-immediate the researcher will contact professionals involved in the participant’s care, including their GP. If the participant consents, the researcher will refer them to the Mental Health Assessment Team.

- Following all interviews the researcher will meet with the Field Supervisor/Local Collaborator to clarify any potential risk issues.
Appendix 10: Personal Questionnaire Cards
Sometimes

Never
Never

A Lot
A Lot
Appendix 11: Personal Questionnaire Recording Sheet
Personal Questionnaire

My target behaviour is/are: 1.  
2.  
3.  

<table>
<thead>
<tr>
<th>Over the last week I have ___________________________ [target behaviour 1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot/ Never</td>
</tr>
<tr>
<td>Sometimes/ Never</td>
</tr>
<tr>
<td>Sometimes/ A lot</td>
</tr>
<tr>
<td>Number of times:</td>
</tr>
<tr>
<td>Scoring:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over the last week I have ___________________________ [target behaviour 2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot/ Never</td>
</tr>
<tr>
<td>Sometimes/ Never</td>
</tr>
<tr>
<td>Sometimes/ A lot</td>
</tr>
<tr>
<td>Number of times:</td>
</tr>
<tr>
<td>Scoring:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Over the last week I have ___________________________ [target behaviour 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot/ Never</td>
</tr>
<tr>
<td>Sometimes/ Never</td>
</tr>
<tr>
<td>Sometimes/ A lot</td>
</tr>
<tr>
<td>Number of times:</td>
</tr>
<tr>
<td>Scoring:</td>
</tr>
</tbody>
</table>