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Factors Influencing Implementation of Evidence Based Psychotherapy Treatments

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Translating Research into Practice: Factors Influencing Implementation of Evidence Based Psychotherapy Treatments

Joanne King

A thesis submitted to the School of Psychology, Bangor University, in partial fulfilment of the requirements of the Doctorate in Clinical Psychology (D.Clin.Psy)

2016

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To my wonderful son, Jude. You have been a source of inspiration to me since the moment I set eyes on you. I will remain forever grateful to you for going to bed on time and not complaining whilst I was in the throes of write-up! Also, to my father, I would not be where I am today, if not for you.

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Translating Research into Practice: Factors Influencing Implementation of Psychotherapy Treatments

The aim of this thesis was to explore the factors that aid or hinder implementation of evidence-based psychotherapy treatments. The literature review was a meta-analysis of studies which investigated the effectiveness of eLearning strategies for training in empirically supported psychotherapy treatments. Across the nine studies reviewed, moderate and small effect sizes were found for the improvement in learners' knowledge and skills, respectively, following training via eLearning strategies, Outcome was moderated by type of comparison group. No significant differences were found between eLearning and traditional forms of instruction. The empirical study examined the survivability of DBT programmes and the factors that aid or hinder its implementation into routine healthcare settings. Survival curve analysis revealed no differences in the probability of survival between early and late adopters of the DBT model. Differences in the probability of survival were found for site of training. Programmes trained off-site from their service setting had a higher probability of survival than teams trained on-site. However, there was a statistically significant difference in the number of teams compared within each, which limits the conclusions that can be drawn from this finding. A number of barriers and aids to implementation were identified. The most strongly endorsed barriers were practitioner turnover and financing. The most frequently cited aids to implementation were quality of the DBT evidence base and practitioner skills. It is recommended that future research explores predictive models of implementation to understand what works where, and why. A concluding discussion highlights other areas for future research and theory development, as well as implications for clinical practice.

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The Effectiveness of eLearning for Empirically Supported Psychotherapy Treatments: A Meta-Analytic Review

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The Effectiveness of eLearning for Empirically Supported Psychotherapy Treatments: A Meta-Analytic Review

Abstract

Background: Numerous barriers exist to implementing evidence-based interventions into routine healthcare settings. eLearning methods have the potential to overcome some commonly identified barriers. Application of eLearning strategies for training in empirically supported psychotherapy treatments (ESPTs) is increasing. However, little is known about their effectiveness in this area.

Aims: This review sought to investigate the effectiveness of eLearning for training in ESPTs for learners at any stage of training or practice.

Method: A web-based literature search was performed to identify original research articles. Five databases (PsycInfo, PsyARTICLES, ERIC, CINAHL, and Cochrane Library) were searched, and 9 articles were included in the review.

Results: eLearning effectively enhanced learners' knowledge and skills. Moderator analyses indicate no significant differences in effectiveness between eLearning and traditional training methods.

Conclusions: eLearning is an effective method for improving learners' knowledge and skills in ESPTs. The effectiveness of eLearning is comparable to traditional methods of instruction, potentially providing an effective and scalable method for increasing implementation of ESPTs. However, due to the small number of studies reviewed, results are tentative and further experimental studies are warranted.

Declaration of interest: None

Keywords: Meta-analysis, eLearning

Background

Evidence-based practice has become the central tenet of healthcare delivery. As a result, numerous empirically supported treatments have been developed for a wide range of health conditions. In the context of mental health care, a wide range of empirically supported psychotherapy treatments (ESPTs) exist, yet they continue to be underutilised in clinical practice (Curran et al., 2015). Consequently, service users are not routinely offered recommended interventions for the treatment of prevention of mental ill-health. The difficulty of translating research into practice is widely acknowledged and as a result the process in which ESPTs are disseminated and implemented into routine practice is now receiving attention (Fixsen et al., 2005).

Despite the range of ESPTs developed, there has been comparatively little research on the most effective methods for disseminating and implementing them into routine clinical practice. Until recently, there has been a passive approach to implementation whereby it was assumed that simply providing evidence of treatment efficacy was enough for an intervention to be adopted and integrated into practice. Given that it takes approximately 17 years for research evidence to reach clinical practice (Green et al., 2009), a more proactive approach is needed to reduce delays in translation and so that consumers can avail of the best treatments available. Methods of ESPT training within clinical efficacy trials typically involve intensive didactic seminars that include review of a treatment manual along with role-plays and skills practice (Sholomskas et al., 2005). In addition, participants are usually required to implement and complete the treatment with at least one case, in which their ability to adhere to and competently apply the intervention is evaluated under close supervision. These training strategies appear to be effective within clinical research, yet they are rarely applied to wider implementation efforts for ESPTs. However, whilst they are considered the gold

standard for efficacy trials, their effectiveness and applicability to community settings is assumed. Moreover, even if they are the most effective method of training, they are unlikely to be feasible for implementation into routine settings due to the time and relative expense required, making widespread uptake difficult.

In contrast to clinical efficacy trials, dissemination and training of ESPTs within routine mental health settings typically involves distribution of treatment manuals and and/or brief didactic workshops without subsequent competency evaluation (Sholomskas et al., 2005). However, research from the medical field suggests that such training strategies are insufficient to facilitate successful implementation of an intervention, in that they improve clinician knowledge but are ineffective in changing practice (Sohn et al., 2004). Furthermore, in the absence of follow-up evaluation or supervision, it is difficult to ascertain whether ESPTs that are implemented are done so to the required levels of fidelity. Research suggests that innovations are more likely to be sustained in practice if they have been initially implemented with fidelity prior to any modifications being made to suit context (Winter & Szulanski, 2001). Therefore, evaluation or supervision of therapeutic competency and treatment fidelity should form a critical aspect of the implementation process.

Numerous barriers to implementation of ESPTs have been identified. They are typically context-dependent (Kajermo et al., 2010) and can exist at the patient, treatment provider, organisational or market level (Damschroder et al., 2009). For example, convincing key stakeholders of the advantages of investing in and implementing ESPTs (providing quality care, improved client outcomes, economic benefits) whilst minimising disruption to routine operation is among one of the barriers faced at an organisational level (Gunter & Whittal, 2010). In addition, utilisation of ESPTs may not be compatible with organisational goals, rendering it difficult for individual clinicians or treatment teams to adopt an evidence-

based approach to practice. Commonly cited barriers by treatment teams or individual clinicians are the time and expense often required for training, as well as concerns regarding the suitability of an ESPT to meet the often comorbid and complex needs of clients (Stewart et al., 2012). Indeed, surveys suggest that practitioners are more likely to base their clinical decision-making on previous experience, rather than evidence-based literature (Riley et al., 2007; Stewart & Chambless, 2007). Furthermore, the process of implementing a new practice has been associated with significant organisational stress, employee perception of increased stress, a reduction in work engagement, and difficulty receiving cooperation from colleagues (Wolf et al., 2012). Thus, even in the presence of organisational support for ESPTs, implementation efforts may be hampered if the cost of adopting them is perceived to outweigh the benefit.

Given that the success of implementation efforts is context-dependent, a one-size-fits-all approach is hardly sufficient. Also, models of ESPT training need to adopt a more flexible and accessible approach to instruction in order to overcome commonly identified barriers to implementation. Thus, there is a need for formative assessments to determine which methods and in which contexts implementation of an ESPT will be most effective. Accordingly, increasing attention is being paid to technology-based methods as an alternative to traditional training approaches. Technology-based methods include all types of Web and computer-assisted instruction that uses electronic media and information technology to support learning (Khanna & Kendall, 2015) and is collectively known as eLearning. Delivery formats can be synchronous ('live' of 'real-time") or asynchronous (self-paced) and can vary in the degree to which they replace face-to-face learning. Thus, eLearning has the potential to improve access to ESPTs as well as enhance the quality and effectiveness of standard didactic training.

A number of advantages of eLearning have been posited. In contrast to traditional training approaches, eLearning provides a more flexible mode of learning to students or clinicians whereby they can access content at their own convenience. eLearning methods also have the option to be paced (allowing for practice of information and reflection) and graded (allowing for repeated opportunity to develop competence), which can accommodate different learning styles (Curran et al., 2015). A survey investigating online training preferences indicated that a website providing clinical material demonstrating therapeutic procedures via realistic role-plays was a top priority for therapists learning enhanced CBT for eating disorders (CBT-E). Furthermore, preferences for a "real person", rather than an avatar or cartoon-like figure, presenting the online training was indicated as well as availability of supervision via the website (Helgadottir & Fairburn, 2014). Advancements in technology have allowed for elements of face-to-face training to be easily replicated via embedded videos and interactive formats, for which preliminary research indicates high user satisfaction ratings (Kobak et al., 2013).

Supervision or expert consultation can be delivered via synchronous online formats such as web-conferencing (Abbass et al., 2011) or teleconferencing (Reese et al., 2009), which may address problems associated with the absence of an onsite supervisor or ESPT expert. Given that supervision is considered an essential component of the training process for the development of competent psychotherapists (Barnett, 2011), technology-based approaches provide the perfect opportunity for clinicians in remote or diverse geographical areas to enhance skill development. Indeed, research shows a high degree of trainee satisfaction with such methods of supervision, comparable to that found with in-person supervision (Reese et al., 2009). Concerns have been raised as to whether technology-based formats reduce the quality of the supervision process due to a reduction in non-verbal cues

(Brown, 1995). However, some research suggests that limited visual cues may paradoxically enhance the quality of the supervision experience due to a greater need for effective verbal communication (Gammon et al., 1998). Nevertheless, there is a lack of controlled studies evaluating the use of technology-based supervision formats rendering it difficult to draw firm conclusions about its effectiveness.

Another major advantage of eLearning is its scalability. Once a programme of learning has been developed, the amount of learners can easily be increased without requiring significant increases in training resources (Weingardt et al., 2009), which would certainly help to extend the reach of an ESPT. However, in order for an ESPT to achieve its potential public health impact, it is crucial that it is also delivered effectively. A recent study evaluating clinician participation in a low-cost scalable trauma-focused CBT intervention found variable participation rates for different online aspects of the training (McMillen et al., 2015). In general, participation rates for online discussion boards were found to be low. Approximately half to two-thirds of participants reported completing some or most of the other online activities such as static online learning and webinar (i.e. web seminars of treatment developers discussing topics that are typically covered at in-person training), which is higher than the normal 5% completion rates found across other disciplines (Ho et al., 2014). Another finding from the study indicated that those who participated did so mainly for the purpose of learning skills needed for their work. Thus, motivation for learning an ESPT is unlikely to increase merely as a result of accessibility alone; appropriateness is also an important factor affecting whether it is implemented into routine practice.

eLearning can also be blended with traditional training methods to enhance the learning experience and facilitate implementation of ESPTs. Rose et al. (2011) utilised a blended learning approach to test a novel combined training and service delivery model for

teaching CBT to primary care staff for anxiety disorders. Clinicians were introduced to a computer-assisted intervention via didactic training and subsequent supervision. The intervention was used as a form of treatment delivery by the clinician whereby they were prompted by the program to use and demonstrate CBT skills to the patient. The programme simultaneously provided a training function to the clinician since its ongoing use iteratively enhanced their adherence and competence to CBT methods with each patient treated. Results from the study indicated that clinicians generally rated the training programme favourably. Also, an inverse correlation was found between clinician's prior level of psychotherapy training and proficiency in CBT skills, as rated by study psychologists. This finding suggests that those with prior training may have found it more difficult to adapt to the structure of a computer-assisted approach. However, this type of blended eLearning approach holds promise for extending the reach of an ESPT to clinicians with minimal training in psychotherapy techniques in a way that is accessible and practical to real-world settings.

Some studies have found blended eLearning approaches to be superior to traditional learning methods with regard to learning outcomes (Sholomskas & Carroll, 2006; Sholomskas et al., 2005). Sholomskas and colleagues found greater gains in ESPT knowledge, adherence, and skill for clinicians who had access to an interactive CD-ROM and therapy manual, compared to those who had access to a manual only. Interestingly, clinicians self-reported pre-training level of familiarity with the treatment in this study did not correspond with independent evaluation of their levels of adherence and competence. This is consistent with previous observations that even seasoned clinicians require training and feedback to reach required competency levels in manual-based therapies (Crits-Christoph et al., 1998). Thus, a blended eLearning approach may provide a suitable platform for both the acquisition and maintenance of ESPT skills, aiding continued professional development.

The available research on eLearning to date is promising. However, reviews of the literature have focused on the application of eLearning methods within medical settings (Cook et al., 2008; Potomkova et al., 2006; Wutoh et al., 2004) or a specific type of eLearning method (Feng et al., 2013). Whilst some reviews have included studies examining the use of eLearning methods for training medical professionals in psychotherapeutic techniques, no review to date has exclusively evaluated eLearning for empirically supported psychotherapy treatments. Training in psychotherapeutic techniques is complex and multicomponent, requiring competence in a number of hard (e.g. theoretical knowledge) and soft skills (e.g. therapeutic rapport) (McMillen et al., 2015). Thus, because of the complex and nuanced nature of psychotherapy, training via eLearning methods may prove difficult in comparison to other types of medical techniques (e.g. diagnostic checklists). Nevertheless, eLearning has the potential to provide an accessible cost-effective means of training large numbers of clinicians, hence, examination of its effectiveness for enhancing knowledge and skills acquisition for ESPTs is worthy of assessment.

Method

Search Strategy

Five electronic databases were searched (PsycInfo, PsyARTICLES, ERIC, CINAHL, & Cochrane Library) with no date range applied. Restrictions placed upon the search criteria included English language and peer-reviewed publications. Search terms were: Web, Internet, computer-assisted, psychotherapy, therapy, training, learning, clinicians, and counsellors. The last date of search was 28th February 2016. Additional articles were identified by hand-searching reference lists of all included articles and previous reviews.

Figure 1 shows the process for selecting studies based upon PRISMA guidelines (Moher et al., 2009).

Insert Figure 1 about here

Study Eligibility

Studies were selected for inclusion if they: a) were randomised controlled trials (RCTs) or quasi-RCTS, b) evaluated eLearning or 'adjuvant instruction' (i.e. eLearning as an adjunct to traditional instruction) to teach learners at any stage of training or practice of an ESPT, c) the comparison group was either a no treatment (delayed control or placebo) or non-eLearning active intervention, d) reported sufficient data for calculation of effect size (ES), and e) reported outcomes of knowledge and/or skills. Studies that did not report outcomes of interest, sufficient data, or did not compare eLearning with a control group or other active intervention were excluded. Authors of two studies with insufficient data were contacted by email to provide additional data for the study variables. Both authors responded to the request but were unable to provide data for analysis. Following the application of exclusionary criteria, nine studies were included in the meta-analysis.

Study selection

One reviewer independently screened all titles and abstracts. Potentially eligible abstracts were retrieved in full text to be considered for inclusion. The Joanna Briggs Institute Meta Analysis and Review Instrument (JBI-MASt-ARI) Critical Appraisal Tool was used to evaluate methodological rigor (e.g. randomisation, blinding, and reliability) of the selected

studies and their appropriateness for inclusion. A score of 5 or more indicated suitability for further analysis (Joanna Briggs Institute, 2011; Appendix 1).

Data Analysis

A quantitative synthesis of nine studies was undertaken using standardised mean differences (SMD) to account for the variety of outcome measures included. Due to the methodological and clinical heterogeneity in populations across studies, effect sizes (ES) were calculated using a random effects model. The ES of interest was Cohen's *d,* which was calculated using an online effect size calculator (Wilson & Mason, n.d.) to compare the effects of eLearning relative to a comparison group. One study (Larson et al., 2013) reported correlational data for which Cramer's V ES was calculated and then converted to *d.* The ES examined immediate treatment effects (i.e. from baseline to immediate post-treatment) for treatment and control groups. Studies were analysed separately for outcomes of knowledge and skills (i.e. self-reported utilisation of skills or expert assessment of skills).

Two studies (Rakovshik et al., 2013; Sholomskas et al., 2005) provided multiple outcome measures for the outcome of skill. For these studies, a single ES was calculated for each measure and then averaged to provide a pooled ES for each study. One study (Harned et al., 2010) did not collect immediate post-intervention data for skills, as this outcome was measured via self-report of skill utilisation within clinical setting. In this instance, self-reported one-week follow-up data was included. One study (Gega et al., 2007) employed a crossover design in which only data from the first time point was included for analysis. Following calculation of a single ES for each study, a summary ES was calculated by the inverse variance method to remove bias associated with sample size. An ES of zero indicates no difference between groups. An ES greater than zero favours eLearning whereas a

negative ES favours the control group or non-eLearning intervention. A 95% confidence interval (CI) that includes zero indicates no significant difference between groups. Effect sizes of d = 0.2, 0.5, and 0.8 are considered small, moderate, and large, respectively (Cohen, 1992). CIs for studies that used multiple outcome measures with different numbers of participants completing each measure (Rakovshik et al., 2013; Sholomskas et al., 2005) were pooled from the average of CIs for each individual outcome.

Moderator Analysis

Prior research has found that the effectiveness of eLearning is moderated by type of comparison group (Cook et al., 2008; Feng et al., 2013). Based on these findings, a categorical moderator analysis was carried out to determine whether the effect size varied depending on type of comparison group.

Three categories were created, eLearning versus no-intervention, eLearning versus manual, and eLearning versus instructor-led training. Three studies (Dimeff et al., 2009; Dimeff et al., 2011; Sholomskas & Carroll, 2006) included two types of comparison groups. In this instance, individual ESs were calculated for each comparison group and included in their respective category for the moderator analyses. Individual ESs from each study were included in the relevant categories detailed above and then a summary ES weighted by the inverse of variance was calculated in order to remove bias associated with sample size. Individual standard errors (SE) for each study were pooled and then averaged to provide 95% CIs for the summary ESs.

Results

Description of Studies

Table 1 provides an overview of the treatment and population characteristics of the nine studies included in this review.

Methodological characteristics: The nine studies in this meta-analysis provided data for a total of 671 participants (eLearning = 292, control group = 379). Seven studies had available gender information, which included 363 females and 153 males. Studies that used a repeated-measures, between groups design, with or without randomisation of participants to intervention or control group(s) were analysed.

eLearning was compared to other active non-eLearning interventions in seven studies (Dimeff et al., 2009; Dimeff et al., 2011; Gega et al., 2007; Larson et al, 2013; McDonough & Marks, 2002; Sholomskas et al., 2005; Sholomskas & Carroll, 2006), a delayed waiting-list control in one study (Rakovshik et al., 2013), and a placebo control in two studies (Dimeff et al., 2011; Harned et al., 2011). In particular, two studies (Dimeff et al., 2009; Sholomskas & Carroll, 2005) compared eLearning with both review of a therapy manual and instructor-led training, whilst one study (Dimeff et al., 2011) included an instructor-led and also an eLearning placebo control group. Seven studies included knowledge as an outcome variable, which was measured using pre and post multiple-choice questionnaires.

Seven studies (Dimeff et al., 2009; Dimeff et al., 2011; Gega et al., 2007; Harned et al., 2011; McDonough & Marks, 2002; Sholomskas & Carroll, 2006; Sholomskas et al., 2005) assessed knowledge outcomes using repeated measure multiple-choice questionnaires. Eight studies reported on outcomes of skill (Dimeff et al., 2009; Dimeff et al., 2011; Gega et al., 2007; Harned et al., 2011; Larson et al., 2013; Rakovshik et al., 2013; Sholomskas & Carroll, 2006; Sholomskas et al., 2005). Four studies (Dimeff et al., 2009; Rakovshik et al.,

2013; Sholomskas & Carroll, 2006; Sholomskas et al., 2005) assessed skills via expert-rated structured role-plays. One study (Larson et al., 2013) assessed skills via expert-rated audiotapes of client sessions and two studies (Dimeff et al., 2011, Harned et al., 2011) used a self-report questionnaire of skills application in clinical practice.

Insert Table 1 about here

The effectiveness of eLearning for training in ESPTs

The findings of the nine studies comparing the effectiveness of eLearning with a no-treatment comparison group or other active intervention are presented in Table 2. Results are presented as ESs (*d*) using standardised mean differences (SMD), with standard error (SE), 95% confidence intervals, and the weighting of each study. Figure 2 provides a forest plot of summary ESs.

Insert Figure 2 about here

The weighted random effects summary ES for knowledge outcomes was 0.56 (95%CI=0.54, 0.58), indicating significant benefits of eLearning for improvement of knowledge in ESPTs, when compared with no-treatment control or other forms of traditional instruction (i.e. review of therapy manual or instructor-led training).

Of the seven studies evaluating the effects of eLearning on knowledge, positive ESs were found for six studies. However, only five studies showed significant gains in knowledge following eLearning (i.e. CIs of individual ES did not cross zero). One study (McDonough & Marks, 2002) found a significant negative ES, indicating that learners in the

instructor-led training group demonstrated significantly greater improvement in EPST knowledge than the eLearning group.

The weighted random effects summary ES for skill outcomes was 0.25 (95%CI=0.23, 0.27), indicating a small and significant benefit for eLearning on improvement of ESPT skills, when compared with no-treatment control or other forms of traditional instruction (i.e. review of therapy manual or instructor-led training).

Six studies reported positive ESs for skill outcomes. However, only one study (Rakovshik et al., 2013) found clinically significant gains for eLearning. Two studies reported negative effect sizes for skills outcomes (Dimeff et al., 2009; and Sholomskas et al., 2005), indicating a more favourable improvement of ESPT skills for the comparison group. However, the CIs in both studies crossed zero, indicating the difference between the treatment and comparison groups was not significant.

Results of Moderator Analysis

Results showed clinically significant large and moderate ESs favouring eLearning on knowledge outcomes (*d*=3.02, 95%CI=1.93, 4.11) and skill outcomes (*d*=0.78, 95%CI=0.05, 1.51), respectively, when compared with a no-treatment group. Small ESs for eLearning were found on both knowledge (*d*=0.42, 95%CI=-0.13, 0.97) and skill (*d*=0.21, 95%CI=-0.41, 0.83) outcomes when compared with manual-based instruction. However, both findings were not found to be significant, indicating no differences between eLearning and manual-based instruction. No significant differences were found for eLearning on knowledge (*d*=0.06, 95%CI=-0.45, 0.57) and skill (*d*=-0.14, 95%CI=-0.60, 0.32) outcomes when compared with instructor-led training (see Table 2).

Insert Table 2 about here

Discussion

This review examined the effectiveness of eLearning for training in empirically supported psychotherapy treatments in nine published outcome studies. The overall mean effect sizes for eLearning were a moderate 0.56 and small 0.25 for knowledge and skills outcomes, respectively. eLearning appears to be a useful mode of instruction for training in ESPTs. However, type of comparison group moderated outcome.

eLearning produced statistically significant gains in knowledge and skills when compared with a no treatment control group. No significant differences were found when eLearning was compared with manual-based or instructor-led training, indicating that eLearning is as effective as traditional methods of training for improving learners' knowledge and skills in ESPTs. However, given the small number of studies included within each moderator category, inferences from these analyses are therefore tentative. Further experimental studies comparing eLearning with other active learning interventions is required to confirm these findings.

The findings from this review are broadly similar to previous reviews (Cook et al., 2008; Feng et al., 2013; Roh & Park, 2010) indicating that eLearning effectively enhances learner's knowledge when the control group received no training. In contrast to Feng et al.'s (2013) meta-analytic review on the effectiveness of situated eLearning, where the overall effect on skills was larger than knowledge, this review found a smaller summary effect for skills, which diminished when compared with traditional methods of training. In their subgroup analysis, Feng and colleagues found that situated eLearning significantly improved skills for students but not clinicians. A possible reason for this finding may be that clinicians

are more likely than students to have had a wider range of clinical experiences and opportunity to practice within context. Thus, in this instance, situated eLearning may be less beneficial to clinicians who have already acquired skills in real-world settings but useful for exposing novice learners to typical clinical scenarios. Notably, sample participants in six of the eight studies that examined the effectiveness of eLearning on skills in the current review were practicing clinicians, which may account for the smaller effect size found skills, relative to knowledge outcomes.

Similar to Cook et al.'s (2008) study, the effectiveness of eLearning was reduced when compared to non-eLearning interventions. Moderator analyses within the current review revealed a small effect for eLearning when compared with manual-based instruction and negligible effects when compared to instructor-led training on both outcomes, indicating no differences between training methods. This is in contrast to findings from Cook et al.'s review whereby a small and significant effect for eLearning remained for knowledge outcomes. It is possible that the large negative effect size favouring instructor-led training in McDonough and Marks (2002) study decreased the overall effectiveness of eLearning on knowledge. In their study, an interactive learning element was included within the didactic teaching group whereby learners could clarify questions and receive immediate feedback, which appears to have been an effective strategy for enhancing knowledge and may account for the greater gains found in this training group.

It is important to note that previous reviews, whilst incorporating studies that examined the effectiveness of eLearning on ESPTs, focused on the use of eLearning within medical settings. The contribution and use of eLearning specifically for ESPTs was not systematically described and therefore findings could not be extrapolated to this field of training. The current review represents some important advances for the ESPT dissemination

and implementation literature. As of yet, there is no clear consensus on the best methods for disseminating and implementing ESPTs. Findings from this review suggest that eLearning is an effective mode of training for emerging or well established psychotherapy treatments. Thus, eLearning has the potential to greatly expand training opportunities for students and clinicians and promote wider uptake of ESPT training. However, further research is needed to explore the underlying mechanisms of different types of eLearning and their application to different ESPTs and learner characteristics.

Several limitations of this review warrant further discussion. First, due to inclusion of studies published only in English, there may be a potential selection bias. Second, is the variety of treatments included for analysis. Inclusion of different ESPTs limits the ability to examine the effects of eLearning for a particular treatment. Therefore, interpretation of results should be made with caution due to the different protocols used across studies. Third, to enhance validity of causal inferences, only RCTs or quasi-RCTs were included in the study, which precluded analysis of single group pre/post-test studies. Due to the nascence of eLearning within ESPT training, a number of pilot studies have been conducted to test the feasibility of eLearning for training in an ESPT. Investigation of these studies may provide a more comprehensive overview of the effectiveness of eLearning within this field. Fourth, no conclusions can be drawn about the long-term effectiveness of eLearning on knowledge and skills by examination of immediate post-intervention data. Given that knowledge is considered to be a precursor to performance and that learning a new skill typically follows an s-shaped learning curve, examination of follow-up data may provide a more accurate estimate of the effectiveness of eLearning. Finally, the outcomes examined in this review were measured using a variety of instruments, which makes comparisons across studies difficult.

This limitation is especially pertinent for those studies that measured outcomes via self-ratings, due to the inherent biases observed in subjective reports.

Clinical Implications

Based upon the results presented here, and commensurate with previous reviews, eLearning is an effective method for improving learner's knowledge and skills in empirically supported psychotherapy treatments. eLearning is accessible and flexible and can be combined with traditional methods of instruction to enhance learner experience and provide ideal training combinations of intensity and expertise based on learners' needs, facilitating new learning and continued professional development. Lastly, eLearning may support ESPTs in achieving their desired public health impact by providing a scalable, low cost, accessible, and flexible method of training.

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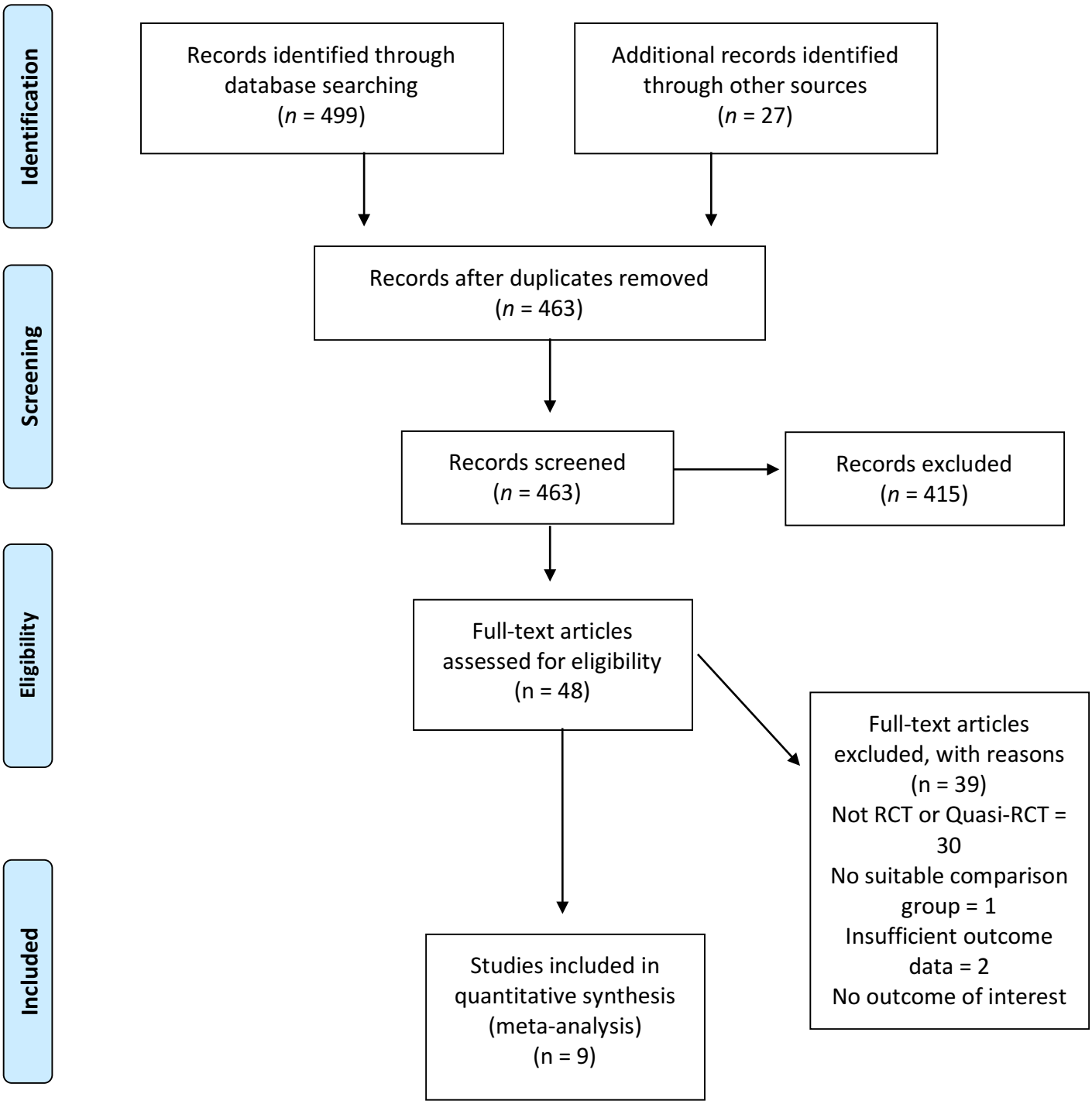

Figure 1. **PRISMA Flow diagram showing the selection process of suitable studies included for meta-analysis.**

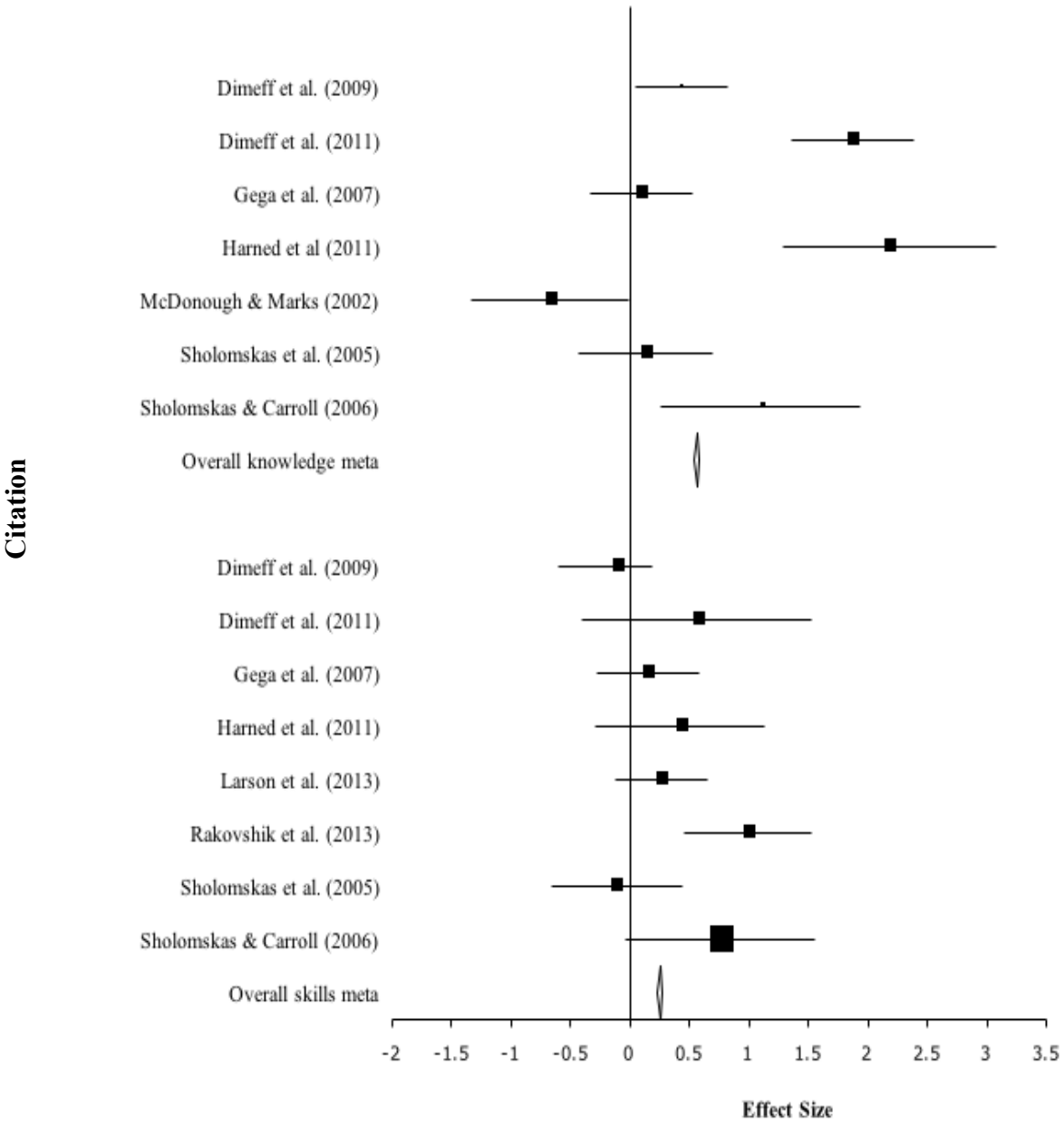

Figure 2. Forest plot of individual and summary effect sizes for knowledge and skill outcomes.

Table 1. *Description of nine controlled studies evaluating eLearning for training in empirically supported psychotherapy treatments.*

Author (Year)	Sample characteristics		Intervention				
	Design	n^a	Psychotherapy topic	eLearning format	Comparison group(s)	Outcomes assessed	Assessment method
Dimeff et al. (2009)	RCT	54, (49, 47)	DBT	Asynchronous web-based instruction	Review of therapy manual; instructor-led training	Knowledge	MCQ
						Skills	ERPR
Dimeff et al. (2011)	RCT	47, (43, 42)	DBT	CD-ROM	Review of therapy manual; CD-ROM placebo training	Knowledge	MCQ
						Skills	SRM
Gega et al. (2007)	RCT	85, (43, 42)	ET	Solo computer-assisted instruction	Instructor-led training	Knowledge	MCQ
						Skills	ERCV
Harned et al. (2011)	RCT	15, 16	ET	Asynchronous web-based instruction	Web-based placebo control	Knowledge	MCQ
						Skills	SRM
Larson et al. (2013)	Quasi-RCT	47, 52	CBT	Asynchronous web-based instruction	Review of therapy manual	Skills	ERA
McDonough & Marks (2002)	RCT	19, 18	ET	Solo computer-assisted instruction	Instructor-led training	Knowledge	MCQ
Rakovshik et al. (2013)	RCT	31, 32	CBT	Asynchronous web-based instruction	Delayed waiting-list control	Skills	ERPR

Sholomskas et al. (2005)	Quasi-RCT	24, (25, 27)	CBT	Asynchronous web-based instruction plus review of therapy manual	Review of therapy manual; review of therapy manual plus instructor-led training and supervision	Knowledge Skills	MCQ ERPR
Sholomskas & Carroll (2006)	RCT	12, 13	TSF	CD-ROM plus review of therapy manual	Review of therapy manual	Knowledge Skills	MCQ ERPR

Note. DBT – Dialectical Behaviour Therapy; CBT – Cognitive Behavior Therapy; ET – Exposure Therapy; TSF – Twelve Steps Facilitation; MCQ – Multiple Choice Questionnaire; ERPR – Expert-rated performance role-play; SRM – Self-report measure; ERCV – Expert-rated case vignette; ERA – Expert-rated audiotape

[a]The first value refers to the number of participants in the eLearning group, the second value is the number of participants in the comparison group. Values in parentheses indicate two comparison groups. Where studies use per-protocol analysis, *n* reported here are based on post-treatment N's.

Table 2. Cohen's *d* effect sizes, Standard Error, Confidence Intervals, Study Weightings for the effectiveness of eLearning compared with a control group with moderator analysis.

Study(Year)	*d*		SE		95%CI (Lower, Upper)		Study Weighting[a] (%)	
	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills
Dimeff et al., 2009	0.43	-0.11	0.20	0.20	0.04, 0.82	-0.60, 0.18	27	21
Dimeff et al., 2011	1.87	0.56	0.27	0.49	1.35, 2.39	-0.40, 1.52	15	4
Gega et al., 2007	0.09	0.15	0.22	0.22	-0.33, 0.52	-0.28, 0.58	23	18
Harned et al., 2011	2.18	0.42	0.45	0.36	1.29, 3.07	-0.29, 1.13	6	7
Larson et al., 2013	-	0.26	-	0.20	-	-0.13, 0.65	-	22
McDonough & Marks, 2002	-0.67	-	0.34	-	-1.33, -0.01	-	10	-
Rakovshik et al., 2013	-	0.99	-	0.27	-	0.46, 1.52	-	12
Sholomskas et al., 2005	0.13	-0.12	0.29	0.28	-0.43, 0.69	-0.66, 0.44	13	11
Sholomskas & Carroll, 2006	1.10	0.76	0.43	0.41	0.26, 1.94	-0.04, 1.56	6	5
Summary ES	**0.56**	**0.25**	**0.01**	**0.01**	**0.54, 0.58**	**0.23, 0.27**	**100**	**100**
Moderator Analysis	*D*		*n*[b]		95%CI (Lower, Upper)			
Comparison Group	Knowledge	Skills	Knowledge	Skills	Knowledge	Skills		
No-treatment control	3.02	0.78	2	3	1.93, 4.11	0.05, 1.51		
Manual	0.42	0.21	4	5	-0.13, 0.97	-0.41, 0.83		
Instructor-led	0.06	-0.14	4	3	-0.45, 0.57	-0.60, 0.32		

Note. Dashes indicate no data.

[a]Figures have been rounded by two decimal points.

[b]*n* = number of studies included within moderator category

Section 2: Empirical Paper

Research

Criteria

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Background: the context and purpose of the study
Methods: how the study was performed and statistical tests used
Results: the main findings
Conclusions: brief summary and potential implications
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Three to ten keywords representing the main content of the article.

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The Background section should explain the background to the study, its aims, a summary of the existing literature and why this study was necessary or its contribution to the field.

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The methods section should include:
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the characteristics of participants or description of materials
a clear description of all processes, interventions and comparisons. Generic drug names should generally be used. When proprietary brands are used in research, include the brand names in parentheses
the type of statistical analysis used, including a power calculation if appropriate

Results

This should include the findings of the study including, if appropriate, results of statistical analysis which must be included either in the text or as tables and figures.

Discussion

This section should discuss the implications of the findings in context of existing research and highlight limitations of the study.

Conclusions

This should state clearly the main conclusions and provide an explanation of the importance and relevance of the study reported.

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Authors' contributions

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The Survivability of DBT: An Exploration of Barriers and Facilitators to Implementation within UK Healthcare Settings.

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Abstract

Background: Dialectical Behaviour Therapy (DBT) is an evidenced-based intervention that has been included in the National Institute of Health and Care Excellence guidelines as a recommended treatment for borderline personality disorder. However, implementing and sustaining evidence based treatments into routine practice can be difficult to achieve. This study compared the survivability of early and late adopters of DBT and of teams trained via different training models, and also sought to examine factors that aid or hinder implementation of DBT into healthcare settings within the British Isles.

Methods: A mixed-method approach was used. Kaplan-Meier survival analyses were conducted to quantify and compare survivability between groups. An online questionnaire was used to explore barriers and facilitators to implementation. A quantitative content analysis of survey responses was carried out.

Results: Significant differences in the probability of survival were found for different training methods. However, unequal amounts of ascertainment data between groups means that findings should be considered tentative. No differences in survivability were found between early and late adopters of DBT. Practitioner turnover and financing were the most frequently cited barriers to implementation. Individual characteristics of practitioners and quality of the evidence-base were the most commonly reported facilitators to implementation.

Conclusions: Effective implementation of DBT requires comprehensive planning that considers organisational context, readiness, and preparation.

Keywords: Implementation, DBT, Consolidated Framework of Implementation Research

Background

Dialectical Behaviour Therapy (DBT) [1] is a comprehensive cognitive-behavioural treatment originally developed for adult women who meet the criteria for Borderline Personality Disorder (BPD), particularly those who engage in parasuicidal behaviour. Traditionally, this client group have been perceived as "treatment resistant" and considered unsuitable candidates for psychotherapeutic intervention [2]. DBT was the first psychological therapy to challenge the culture of therapeutic rejection for individuals with BPD and has become one of the best evidenced treatments for this client group.

Numerous DBT efficacy trials [3; 4; 5; 6; 7; 8; 9; 10; 11] have demonstrated reductions in suicide attempts, intentional self-injury, anger, depression, hopelessness, and improvements in global functioning [12]. Recent meta-analyses have found moderate to large effect sizes indicating a beneficial effect of DBT when compared to treatment as usual on outcomes such as anger, parasuicidality, and mental health [13; 14]. Furthermore, several randomised controlled trials (RCTs) have examined the application of DBT with other client groups such as older adults with major depressive disorder, eating disorders, and forensic populations [15; 16; 17; 18; 19]. Thus, the collection of data on DBT clearly indicates its efficacy for the treatment of BPD and holds promise for a host of other disorders.

In 2009, DBT was included in the National Institute of Health and Care Excellence (NICE) guidelines as a recommended treatment for females with a diagnosis of BPD and a history of repetitive self-harm [20]. Since then, a number of healthcare providers within the United Kingdom (UK) have included the provision of DBT as a quality improvement indicator in an effort to meet national targets in health outcomes for individuals with serious mental illness

[21]. Preliminary efficiency research also suggests that DBT has the potential to be a cost-effective treatment for individuals presenting with parasuicidal behaviour [22; 23]. Indeed, it appears that the potential benefits DBT has to offer is gaining traction within routine healthcare settings.

Notwithstanding NICE recommendations, demonstrable treatment efficacy, and potential cost efficiencies, concerns have been raised about the sustainability of DBT programmes within the UK National Health Service (NHS) [24]. Some of the factors that can influence whether an innovation is successfully implemented and sustained are timing and popular opinion. For example, Diffusion of Innovations Theory [25] suggests that innovations must be widely adopted in order to self-sustain. Widespread adoption of a new practice depends initially on innovators and early adopters and how quickly the subsequent late majority can be persuaded to shift. Furthermore, it is purported that ideas not sustained by early adopters are unlikely to spread elsewhere [26]. This suggests that the rate of adoption between early and late adopters is particularly relevant because if uptake is protracted, early adopters may move on to new ideas, thereby impacting on the spread and sustainability of previously adopted innovations.

Other factors that can impact sustainability are those directly related to the innovation itself, such as the ease in which it can be implemented and how well treatment effects will generalise into routine healthcare settings. The DBT model entails a comprehensive programme that structures the treatment environment across different modalities to enhance client's capabilities (skills training groups), improve their motivation (individual therapy), aid generalisation of new skills (telephone skills coaching), and supervise DBT therapists (a

consultation team model) [27]. All of the treatment modalities are informed by a coherent theoretical model with associated therapeutic strategies based on cognitive behavioural principles and mindfulness [1; 28]. The programme is delivered by a team of mental health professionals all trained within the DBT model and the rationale for doing so is to alleviate the stress and anxiety of working with a high risk client group in which change is often slow [27]. Nevertheless, the requirement of a specialist trained team usually requires a significant reorganisation of existing services and an ongoing commitment to delivering an intensive specialist intervention. This is likely to have an impact on how well DBT is implemented or, indeed, whether it is even considered viable for adoption within a service

Deciding to implement a new practice is not a discrete event but a set of interactive dynamic processes. The difficulties of translating evidence-based research in to real-world settings is widely acknowledged [29], which has led to a growing body of literature examining the various factors involved in the implementation and sustainability of evidence-based practices (EBPs) [30; 31; 32]. Historically, more attention has been paid to the efficacy of interventions. Whilst such information might help a consumer or agency to select a particular type of intervention, evidence of efficacy alone does not lead to more successful implementation [29], in the same way that simply training practitioners in a new approach does not sufficiently ensure behaviour change [33]. Thus, transfer of innovation needs to be considered within organisational and wider system contexts to ensure that desired change is disseminated, implemented and sustained [34]. However, due to organisational restructuring that requires changes in service provider behaviour and transformation of systems, translating an EBP into routine practice remains an unquestionably complex and often daunting task.

A number of conceptual frameworks have been developed to aid the process of implementation [29; 31; 35; 36; 37]. Whilst these frameworks differ somewhat on areas of emphasis and terminology, influences on implementation generally relate to the context (outer and inner), the innovation itself (fit, training, efficacy), implementation processes (planning, selection, evaluation), individual characteristics (motivation, skill), and sustainability factors (fidelity monitoring, penetration, outcomes etc.). These components are considered to be interrelated and a change in one may result in change in others. Therefore, due to the dynamic nature of healthcare systems and their external contexts, a given programme or practice may require more or less of a component at any one time in order to be successfully implemented. This represents a challenge for the implementation and sustainability of innovations, as the relative contribution of each component to overall outcome can change, resulting in the need for ongoing monitoring of processes. Such tasks can be greatly supported by the application of a guiding theoretical framework. Currently, there is no guiding conceptual model of sustainability of EBPs distinct from implementation models. However, most of the conceptual frameworks of implementation incorporate factors directly related to programme sustainability.

Considering the above, implementing a comprehensive DBT programme into routine healthcare settings is unlikely to be a straightforward endeavour. Preliminary research into the survivability of UK DBT programmes that underwent an intensive training programme between 1995 and 2007 confirmed that some teams had difficulty sustaining [27]. Highest failure rates were found shortly after training ended (i.e. the second year of the programme) and again in the fifth year. Participants identified a number of challenges associated with implementing DBT into their service, which were generally characterised by an absence of

organisational support. Conversely, for teams that had implemented successfully and managed to sustain, the presence of organisational support was identified as a facilitating factor.

In an effort to increase organisational support and promote effective implementation strategies, British Isles DBT (BIDBT) have begun to offer an alternative training model. Typically, training involves teams of practitioners participating in two five-day DBT intensive training events that are delivered off-site, which is known as the 'open-enrolment route'. Each training event is separated by 8 months during which teams commence the process of setting up and starting a DBT programme. With the new model, the content of the training is the same; however organisations wishing to deliver DBT programmes are encouraged to host intensive training on-site. This requires a greater financial investment and consideration of how to adapt staff roles in order to successfully deliver treatment, with the idea that greater organisational investment will have a positive influence on the implementation process. This change in training delivery warrants further investigation to examine whether it improves implementation of programmes.

The aims of the present study are threefold: 1) to investigate whether change in training method delivery impacts on the survivability of DBT programmes, 2) to investigate whether there is a difference in survivability among early and later adopters, and 3) to examine factors that act as a barrier or facilitator to implementation by using a theoretical implementation framework to guide assessment.

Method

Participants

All BIDBT programmes that underwent intensive training between January 1995 and February 2016 were eligible for this study. BIDBT maintain a database to systematically record data on programme contact details, start date, activity status, cessation date, and site of training delivery. The unit of analysis was DBT teams. However, for the purpose of this study, only one team member from each DBT programme was invited to participate in the study. In the first instance, all DBT team leaders were selected for participation. If a team leader was unavailable, another current team member of an active team, or any former member of inactive teams, was selected for participation.

Design & Procedure

A concurrent mixed-method approach [38] was used to quantify the survivability of DBT programmes using data from the BIDBT database and triangulate those findings with participant responses from an online survey to identify factors that may aid or hinder implementation of DBT into routine settings.

Initial contact to participate in the survey was made via email to all DBT team leaders registered on the BIDBT training database. If an email was returned as undeliverable, an alternative team member was contacted. Participants were provided with information on the purpose of the study and were offered the opportunity to be entered into a prize draw following completion of the survey. A link to the online survey was contained within the body of the initial email.

Measures

A 70-item questionnaire was designed to elicit information regarding DBT teams' experiences of implementing DBT into their service. The questionnaire consisted of three types of questions (closed, free response, and rating scales) and was conceptually divided into six separate domains. The first domain relates to factors considered to be relevant to practice sustainability and is adapted from Swain and colleagues' [39] study on the sustainability of EBPs in routine mental health agencies. The remaining five domains are based on Damschroder and colleagues' [36] Consolidated Framework for Implementation Research (CFIR). The CFIR is an overarching theoretical framework that incorporates common constructs from a range of published theories on implementation and is comprised of five major domains*: Intervention Characteristics; Inner Setting; Outer Setting; Individual Characteristics*; and *Implementation Processes.* Each domain includes a constellation of interactive constructs that are purported to influence the implementation process, for a detailed discussion see [36]. Demographic information was also collected.

Analysis

Kaplan-Meier (K-M) [40] survival analyses were carried out to estimate the cumulative survival rates of DBT programmes that commenced intensive training since April 2007, compare the survival rates of teams trained pre and post April 2007, and compare the survival rates of teams trained on-site versus open-enrolment. An assumption of K-M survival analysis is that there are similar amounts of censored data between groups. Due to the unequal durations of cohort timeframes (12 years versus 9 years), cross-sectional data of the first 7 years of each cohort were analysed for comparison, and only those teams who

commenced training from January 2009*1* were included in the site comparison analysis. Teams active at the time of analysis and teams lost to follow-up were categorised as censored data. A two-proportion Z test was carried out to check K-M assumptions of similar amounts of censored data between groups. The log-rank test was used to examine the statistical difference of survival rates in both comparative analyses

A quantitative content analysis of survey data was carried out to investigate the frequency in which individual implementation and sustainability constructs were identified as an aid or barrier to a programme's ability to successfully implement and sustain.

Results

Survivability

Based on data contained within BIDBT database, a total of 471 DBT programmes were included for survival analysis. Of these, 159 (34%) commenced training prior to April 2007 and 312 (66%) after this time. Ascertainment of programme status across cohorts was 122 (25%) inactive teams and 191 (41%) active teams. The status of the remaining 158 (34%) programmes could not be ascertained and they were included in the analysis as censored data.

Comparative analyses

Cohort comparison - A total of 282 teams were included for analysis. Of these, 70 teams (censored data *n* = 57, 81%) were from the pre-April 2007 cohort and 212 teams (censored

1 The on-site training model has been available since January 2009.

data n = 154, 73%) were from the post-April 2007 cohort. A two-proportion Z test indicated no significant differences of censored data between groups (z = 0.071, p >0.05, one-tailed). K-M survival curves (Figure 1) and log-rank test indicated no significant differences in the overall probability of survivability between cohorts (log-rank test p = 0.94). Highest programme failure rates were found in the second year for the pre-April 2007 cohort and in the fourth year for the later cohort (see Appendix 1 for life tables descriptive data).

*****insert figure 1 around here*****

Training method comparison - A total of 266 teams were included for analysis. Fifty-two teams (censored data n = 35, 67%) were trained on-site and 214 teams (censored data n = 187, 87%) were trained off-site. A two-proportion Z test indicated significant differences of censored data between groups (z = -3.494, p <0.05, one-tailed). K-M survival curves (Figure 2) and log rank test showed that teams trained off-site had a significantly higher probability of survival than teams trained on-site (log-rank test p = 0.002). Highest failure rates were found in the second year for teams that trained on-site, compared to the third year for teams trained via open-enrolment (see Appendix 2 for life tables descriptive data).

*****insert figure 2 around here*****

Implementation

The online questionnaire was completed by 68 respondents. Sixty-two (91%) were from active teams and 6 (9%) were inactive. Of the active teams, the majority of respondents were located in England (61%) and the remainder were located in Wales (13%), Scotland (3%),

and Ireland (13%). The proportion of teams containing the following professions were: clinical psychologists (83%), nurses (77%), social workers (33%), psychological therapists (33%), and occupational therapists (21%). The most frequently reported amount of DBT trained clinicians within a service was between 4-5 (37%) with a range of 2 to 12 trained clinicians. Twenty-nine (46%) respondents worked within community adult mental health services, 12 (19%) within child and adolescent mental health services (CAMHS), and the remainder across a range of learning disability (5%), eating disorders (3%), forensic (10%), youth mental health (2%), personality disorder (2%) and inpatient settings (13%). Fifty-three (85%) active teams fell within the statutory service sector and 9 (15%) within the private sector.

Of the six inactive teams who completed the online survey, the median survival time was 2015 days (5.5 years), range 635-4405 days. All respondents from inactive teams were asked to provide three reasons why they thought their DBT programme discontinued. The most frequently cited reason for programme failure was lack of management support (83% of cases) either due to lack of understanding of how DBT works, insufficient time allocated to deliver DBT, or priority given to competing service demands. Lack of funding (50% of cases), lack of colleague support (50%), and staff turnover (33%) were other reasons reported for programme failure. One respondent also cited high dropout rates as a reason for their programme ending but reflected that this may have been as a result of "overly rigid referral criteria".

Content analysis.

Response frequencies and percentages for each implementation construct were counted for the total online survey sample. Respondents were also invited to leave comments to further elaborate their responses within each implementation domain. All comments were analysed by the lead author and grouped according to the implementation category referred. Due to the small response rate from inactive teams (9%), statistical analysis of response differences between active and inactive programmes could not be carried out. Complete frequency counts and percentages for all survey constructs are provided in Appendix 3.

Barriers to implementation

The most frequently endorsed barrier to implementing DBT was practitioner turnover (59%) followed closely by financing (52%). Other common barriers were availability of resources (41%), the perceived difficulty of implementing DBT (40%), and external change events (34%). No constructs within the *Individual Characteristics* or *Outer Setting* domains were strongly endorsed as barriers to implementation. Table 1 provides illustrative comments to the most commonly reported barriers to implementing DBT.

*****insert Table 1 here*****

Aids to implementation

There were a number of constructs strongly endorsed as aiding the implementation process, the most common being the quality of the DBT evidence base (88%). Other frequently endorsed constructs were practitioner skills (82%), acceptability of DBT by clients (79%), the perceived advantage to implementing DBT into practice (78%), practitioner attitudes

(78%), DBT training (77%), practitioner readiness (75%), and shared willingness among DBT clinicians to implement the programme (75%). All constructs within the *Individual Characteristics* domain were strongly endorsed as aiding the implementation process. Illustrative comments are provided in Table 2.

*****insert Table 2 here*****

Sustainability

Frequency and percentage data were collected on a number of factors considered to be related to sustainability of interventions such as collection of client outcome data, extent of programme penetration, ongoing training and consultation, and treatment fidelity. Of the active teams, 51 (82%) collected client outcome data, which was mainly used for tracking client progress and auditing the effectiveness of the programme. Seven (11%) respondents indicated that they were serving considerably less clients than when they initially commenced DBT training. Twenty-nine teams reported that they were serving approximately the same (47%) and 26 (42%) said they were serving a lot more clients since initial training. Thirty-seven (60%) respondents had received external consultation. However, only 24 (39%) reported accessing DBT expert supervision. The majority of teams, 43 (69%), carried out new team member training and 34 (55%) had received booster training. With regards to treatment modalities, 61 teams (98%) offered skills training and individual therapy, 60 (96%) ran a consultation group, and 48 (77%) offered telephone support. Finally, 41 teams (66%) had made adaptations to the DBT model and of these, 20 (32%) reported making changes during the initial training phase.

All six inactive teams collected outcome data. Four teams used the data (67%) to demonstrate clinical outcomes and cost effectiveness. One respondent (17%) indicated that they had served considerably fewer clients post initial training phase, with the remaining respondents either having served the same amount (33%) or a lot more clients (50%). Only two teams (33%) did booster training and no teams carried out new team member training. Five teams (83%) had offered all four DBT treatment modalities: individual therapy, group skills training, therapist's consultation group, and 24-hour telephone access. One team (17%) did not offer telephone consultation. Only two teams reported modifying the DBT model to suit their service needs and of these, one team made modifications during the initial training period whilst the other implemented one full round of DBT before making adaptations.

Discussion

Survival curve data for teams trained post-April 2007 showed that the highest proportion of programme failure occurred in the fourth year. This contrasts with the findings from Swales et al's [27] study. However, since their publication in 2012, additional programme ascertainment data became available. A repeat survival analysis was conducted with the pre-April 2007 cohort and results indicated that the highest proportion of programme failure occurred within the second and third year. However, no significant differences were found in the overall probability of survival between the sample populations. Despite the differences found for programme failure time points, both survival curves displayed a trend towards highest programme failure rates within the first four years. Existing literature suggests that full implementation of EBPs can take anywhere between 2 to 4 years to complete [41]. It is likely that full DBT implementation occurs at the latter end of this timeframe, due to the

relatively lengthy initial training period. Given that sustainable practice requires implementation to be fully completed, the higher rates of programme failure found within the first 4 years for each cohort may reflect issues related to implementation planning and execution, rather than problems with programme sustainability.

Traditionally, the translation from science to practice has been a passive process that has usually only involved diffusion and dissemination of EBP information, with the hope that this is sufficient to change practitioner behaviour. There is a current shift towards a more active approach whereby outside experts work alongside organisations to help achieve implementation success and assure benefits to consumers [41]. Results from the present study found that on-site training did not increase the probability of survival. Survival curve comparison of training delivery methods indicated that programmes trained off-site had a significantly higher probability of surviving. This is a surprising finding, given that on-site training was designed to increase organisational investment in DBT implementation. However, this finding must be interpreted with caution, as the amount of censored data between the comparison groups was found to be significantly different, which limits the conclusions that can be drawn about differences between groups. Thus, further research in this area is warranted to confirm these results.

Notwithstanding this caveat, a possible explanation for the differences found may be that those attending off-site training have engaged in a substantial amount of pre-planning and assessment of organisational readiness, and in efforts to obtain management buy-in, have identified an explicit need for implementing DBT into their service setting. In doing so, they are possibly more likely to have actively considered how an implementation plan may be

executed. Also, attending off-site training provides greater opportunity to network with other teams, allowing for the sharing of experiences and ideas, which may be beneficial in to initial implementation efforts. Implementation is a recursive process and therefore strategies to address barriers to implementation need to be flexible and responsive. Thus, securing organisational investment at the beginning may not necessarily ensure long-term investment, especially in the case of high management turnover. This is exemplified by one respondent who reported having "to work hard at explaining the rationale for using DBT" to secure ongoing funding with each successive management change.

Practitioner turnover and financing were the most commonly identified barriers to implementing DBT programmes. This is consistent with findings from other studies [42]. However, these constructs are not mutually exclusive, as difficulties financing new team members was one of the main problems identified when practitioner turnover was high. Financing initial training was identified as a key barrier for some programmes. Although, a few overcame this difficulty by securing initial funding from external sources and then using evaluation and outcome data to secure ongoing funding from their organisations. Other programmes identified difficulties with ongoing financing, whether it was for training new team members, booster training, or accessing expert supervision or consultation.

A number of facilitators to implementation were identified. Most notably, all constructs within the *Individual Characteristics* domain were strongly endorsed as aiding the implementation process. A number of respondents reported highly motivated or skilled practitioners, effective leadership of the DBT team, or the presence of a DBT champion as key to overcoming barriers encountered to implementation and sustainability of programmes.

This finding highlights how a strength in one or more areas can compensate for weaknesses in others [29]. Nevertheless, overreliance on an individual(s) to ensure effective implementation and sustainability leaves a programme particularly vulnerable to practitioner or leadership turnover. Organisations are dynamic and so the relative contribution of implementation constructs can inevitably wax and wane. This poses a difficulty for organisations because changes in one construct requires adjustments in others. Thus, successfully managing such changes will require effective monitoring and feedback systems to keep a programme on track [41], as well as ongoing availability of resources to do so.

Another factor that was strongly endorsed as aiding the implementation process was the quality of the evidence base for DBT. Whilst efficacy data alone is insufficient for changing practice, findings from this study indicate that for some programmes it was crucial to securing management buy-in to delivering DBT. It may be that the quality of the evidence base is a significant factor during pre-planning and preparation stages, allowing for organisations to weigh up the suitability of DBT for their service. However, for populations in which the evidence base for DBT is not as extensive or robust, the lack of efficacy data may present as a barrier to implementation. In this instance, the opportunity to trial a DBT programme and collect effectiveness data may prove beneficial.

Over half of survey respondents indicated that their programme engaged in practices which are considered pertinent to sustainability, with the exception of receiving supervision from a DBT expert. This is an encouraging finding and suggests that teams are aware of the need for continuous monitoring and collection of outcome data. However, given that the highest failure rates for programmes are found within the active implementation stage (i.e. 1-4 years),

programmes should also consider identifying and monitoring implementation outcomes, distinct from service and treatment outcomes. Evaluation of implementation outcomes will provide an indicator of implementation success and yield an index of implementation processes. Also, because treatment effectiveness requires successful implementation, monitoring implementation outcomes is a necessary intermediate step to obtaining desired clinical and service outcomes [43].

There are a number of limitations to the study. The first being the small number of survey respondents from inactive teams, which prevented comparative analyses, and limits the conclusions that can be drawn from the findings. Second, the method of data collection prevented exploration of research participants' interpretation of questions or the opportunity to clarify responses. Although a summary question was included at the end of each survey domain, not all respondents chose to elaborate their responses, limiting the amount of qualitative data collected. Lastly, the retrospective accounts from individual team leaders/members must be interpreted with caution due to problems inherent with self-report, such as post-hoc rationalisation. Future research should endeavour to recruit multiple respondents from programmes to reduce the likelihood of methodological bias, as well recruit greater numbers of inactive teams to ensure a representative sample of respondents.

Despite these limitations, the present study possessed a number of strengths. Among them was the use of a concurrent mixed-methods approach, which allowed quantitative findings to be complimented with qualitative information and provide greater insight into the complexities of implementation and sustainability processes. Another significant advantage was the application of the CFIR to guide assessment of the barriers and facilitators to DBT

programme implementation. A problem with the existing implementation literature is the wide range of definitions and terminologies used, rendering it difficult to extrapolate constructs to other settings. By using the CFIR as a scoping tool, a number of constructs salient to implementing DBT into routine healthcare settings were identified, allowing for refinement of more relevant assessment tools for future research.

Conclusions

Successful implementation and sustainability of DBT into UK routine healthcare settings poses a challenge. However, since the onset of BIDBT intensive training in 1995, the survivability of DBT programmes has remained stable. Given the ever-changing landscape and finite resources of healthcare systems, this is an encouraging finding. Nevertheless, a number of programmes struggle to effectively implement and sustain DBT within their organisation. Adaptations to the training model did not improve the probability of programme survival. However, further investigation in this area is needed. A number of factors hindering or facilitating implementation of DBT were reported. Whilst these factors can vary between and within organisations, comparison with previous research suggests that the main barriers or aids to implementation have remained fairly consistent. Future research should include evaluation of predictive models that allow for testing the relative contribution of each implementation component, in order to identify what works in which contexts.

Declarations

List of Abbreviations

BIDBT	British Isles Dialectical Behaviour Therapy training team
BPD	Borderline Personality Disorder
CAMHS	Child and Adolescent Mental Health Service
CFIR	Consolidated Framework for Implementation Research
CQUIN	Commissioning for Quality and Innovation payment framework
DBT	Dialectical Behaviour Therapy
EBP	Evidence Based Practice
K-M	Kaplan Meier survival analysis
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
RCT	Randomised Controlled Trial
UK	United Kingdom

Ethics approval and consent to participate

Ethical approval was obtained from Bangor University Ethics Committee – Reference number: 2015-15499-A13485.

Consent to participate was indicated by completion of the survey. Respondents could request for their survey data to be excluded from the study at any point.

Availability of data and materials

The dataset supporting the conclusions of this article can be found at North Wales Clinical Psychology Programme (NWCPP), School of Psychology, Brigantia Building, Penarallt Road, Bangor, Gwynedd, LL57 2AS

Competing interests

M. A. Swales is the Director of the British Isles DBT Training Team that trains practitioners in DBT with a licensed training programme. R. A. Hibbs is the Managing Director of Integral Business Support Ltd that delivers licensed training in DBT. M. A. Swales and R. A. Hibbs are married.

Authors contributions

JCK drafted all components of the manuscript and MAS made significant contributions to the framing, editing, organisation, and content of the manuscript. RABH provided support with statistical analysis of data.

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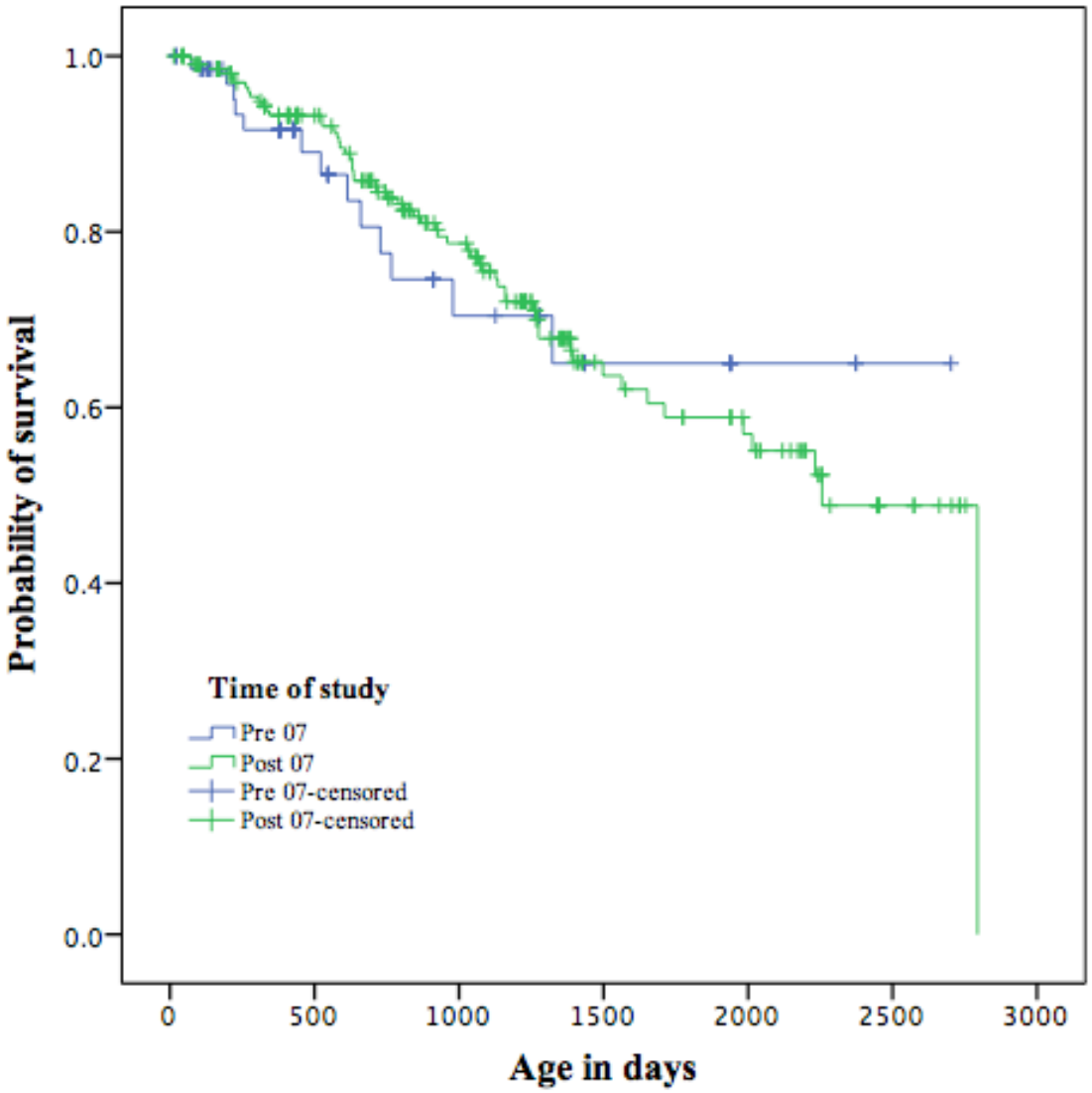

Figure 1. Comparison of survival curves between DBT programmes trained prior to and post April 2007.

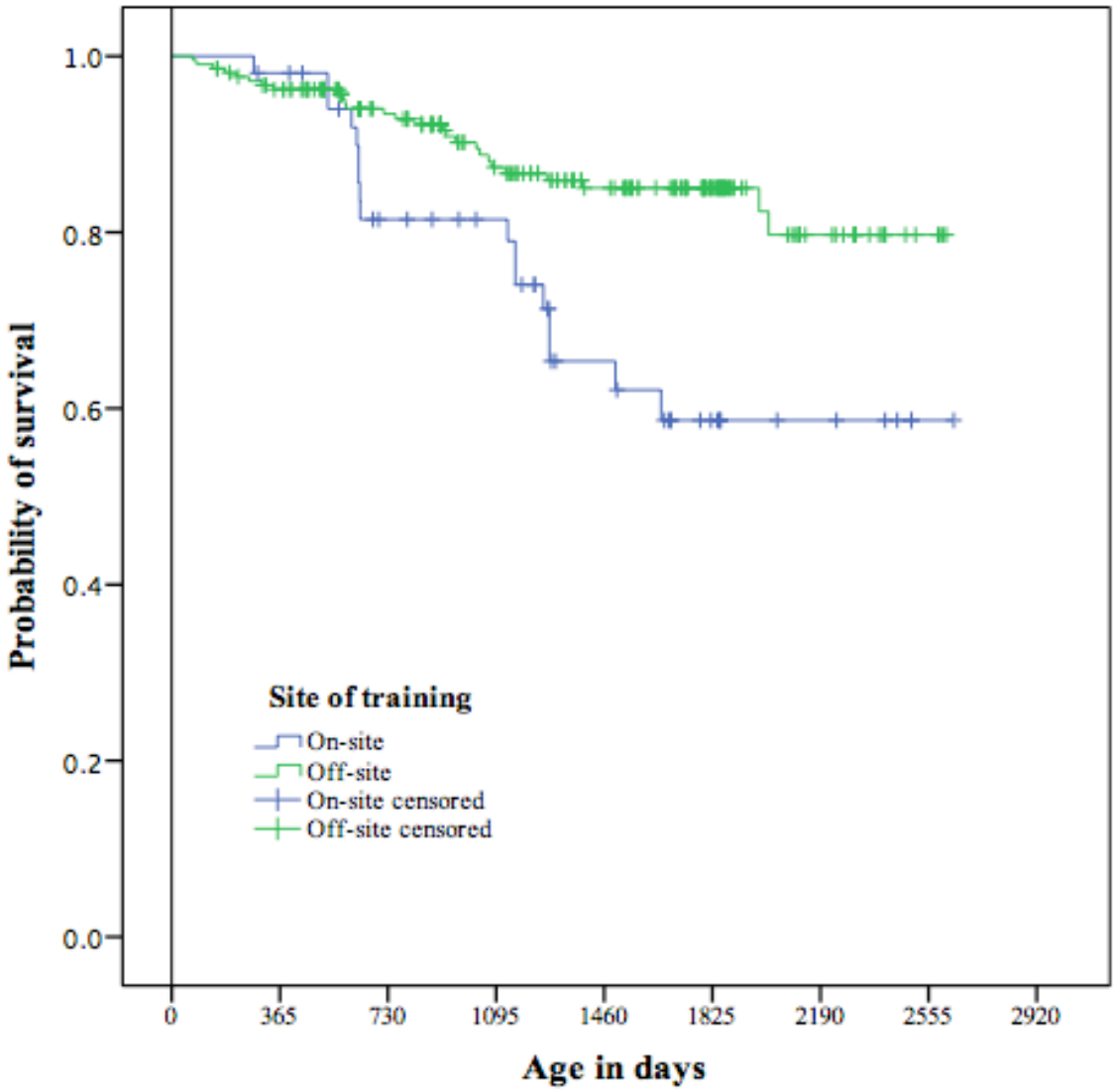

Figure 2. Comparison of survival curves between DBT programmes trained off-site and on-site.

Table 1. Barriers to Implementing DBT.

Implementation domain	Construct	*N*	%	Example
Intervention characteristics	Financing	35	52	"Cost of DBT training can be prohibitive…concern about this in future in current economic climate - despite evidence base for longer term money saving - trusts often view things in short term when lots monies need to be saved"
	Perceived difficulty of implementing DBT	29	40	"All DBT staff have had a long break since last running the programme and so it is harder for us to re-start the programme"
Inner setting	Practitioner turnover	40	59	"Until very recently we had no practitioner turnover this really helped with the initial establishment of DBT and refining it. We have recently had someone leave and one person is on mat leave…The people who have left are our least psychologically experienced team members and so these people delivered the groups whilst others did more primary therapy. At the moment existing team members are now doing both and this is not sustainable long term."
	Available resources	28	41	"Failure to provide funding for a second laptop for second consecutive group and time in lieu for out-of-hours telephone consult hindered implementation."
Implementation process	External change events	23	34	-

Note. - indicates no elaborative comments provided for implementation construct.

Table 2. Aids to Implementing DBT.

Implementation domain	Construct	*n*	%	Example
Intervention characteristics	Quality of DBT evidence base	60	88	"Evidence on efficacy and cost savings also had a significant impact in securing Trust manager's interest and support"
	Perceived advantage of implementing DBT	53	78	"Business plan presented to commissioners comparing costs of often unsuccessful inpatient programmes, allegedly DBT informed, with adherent programme."
	DBT training	52	77	"The training we had from the British Isles team was excellent and central to our success. We make reference to it frequently in consult meetings."
Outer setting	Acceptability of DBT by clients	54	79	"In the past, when DBT was at risk of cuts due to financial pressures, we were able to arrange for ex-clients and current clients to talk to the senior management and explain the impact and benefits DBT had had on their lives."
Inner setting	Shared willingness to implement DBT	51	75	"We regularly meet for CPD opportunities (every 6 months) on DBT adherence and how we are implementing DBT. We use recordings/triadic observation of the 1:1 session to evaluate therapist behaviours and try to stay focused on the Consultation Supervision group agreements."
	Leadership engagement	49	72	"…so there is senior management support to find a solution quickly. Including to find resource to train a considerable number of new staff and ensure that their roles in relation to DBT are made clear going forward."

Implementation domain	Construct	*n*	%	Example
Individual characteristics	Practitioner skills	56	82	"Clinicians highly skilled and experienced so take great pleasure in learning and adhering to effective but also very creative model."
	Practitioner attitudes	53	78	"We have a team of highly motivated DBT therapists and the service has developed a good and growing reputation with referrers to the service."
	Practitioner readiness	51	75	-
Implementation process	Appointment of DBT team leader	42	62	"…but the DBT lead worked to gain this [management buy-in] and the success of the programme has led to this over time."
	Execution of implementation plan	42	62	-

Note. - indicates no elaborative comments provided for implementation construct.

Section 3: Contributions to Theory and Clinical Practice

Contributions to Theory and Clinical Practice

The preceding papers of this thesis aimed to explore the factors related to implementation of empirically supported psychotherapy treatments (ESPTs). The meta-analytic review focused on the use of eLearning training methods for ESPTs, whilst the empirical paper sought to investigate the survivability of Dialectical Behaviour Therapy (DBT), as well as the barriers and aids to implementing DBT into routine healthcare settings. Findings from the review found that eLearning methods were effective for enhancing ESPT knowledge and skills. Findings from the empirical paper found that the DBT programmes trained off-site had a higher probability of survival, although further research to confirm this finding is required. No differences in survival probability were found between early and late implementers and a number of salient factors that may facilitate or hinder successful implementation of DBT were also identified. Based on these findings, the following discussion highlights areas to consider for future research and theory development, along with clinical implications for both eLearning and implementation of DBT.

Implications for future research and theory development

eLearning

There are a number of considerations for future research pertaining to the application of eLearning methods for ESPTs. First, whilst results from the meta-analytic review indicate that eLearning was an effective method of training delivery, the small number of studies included in the review and the heterogeneity of ESPTs investigated render the findings tentative. Thus, further randomised controlled studies across a range of ESPTs are required

to more fully evaluate this method of training and examine its utility across different types of psychotherapy treatments.

Second, due to diversity of learning preferences and styles, future research exploring the mechanism of change within different teaching-learning models and consideration of how this can be best applied to different types of learners is required. For example, professional learners are likely to already have an extensive level of knowledge and experience to draw from and may engage in further training for the purpose of skill enhancement. Contrastingly, knowledge acquisition is likely to be the focus of training for students. Therefore, by understanding which aspects of training are associated with better outcomes for different aspects of learning, the training method, dosage, and/or intensity can be adjusted accordingly. This is particularly relevant for blended learning approaches whereby different learners will prefer or require different combinations of eLearning and traditional learning.

Third, learning and implementing an ESPT into everyday practice is a complex set of tasks that require ongoing feedback, expert consultation, and supervision in addition to initial training. The findings from the empirical paper indicate that many DBT teams struggled to access these supports, mainly due to issues with financing. eLearning has the potential to aid implementation and sustainability of DBT by utilising various technological formats. For example, synchronous eLearning can provide real-time instructor-led training or supervision. Also, web-conferencing or virtual classrooms may promote the development of DBT networks, allowing for the sharing of knowledge and experiences among practitioners. Indeed, findings from the meta-analytic review found eLearning to be effective for training in

the DBT skills module. Future research should attempt to expand on this and investigate the benefits of eLearning for other aspects of DBT training.

Finally, whilst it is important to examine the effectiveness of eLearning on learners' knowledge and skills, this is only beneficial in so far as how much they are applied in day-to-day practice. Follow-up studies investigating the extent to which ESPT knowledge and skills are applied following training are required. However, consideration should be given to the ways in which application of skills is measured, as the problems inherent with self-reporting make it difficult to accurately assess whether an ESPT is applied with appropriate levels of fidelity. Preliminary research has attempted to measure utilisation of therapeutic strategies via patient rating scales (Stein et al., 2015) and found an increase in clinician use of treatment techniques. However, the study did not examine the impact of practice change on patient outcomes and collecting data via patient rating scales is also subject to reporting biases. Also, it may be that some practitioners are unaware they are not adhering to an ESPT model, as the problems often encountered in accessing ongoing expert consultation and supervision make it difficult for practitioners to receive essential corrective feedback. eLearning possesses the potential to overcome this difficulty by enabling access to experts in different geographical locations whereby digital video or audio clips can be shared and rapid feedback can be provided.

Much of the literature investigating the benefits of eLearning for ESPTs has stemmed from a pragmatic standpoint, such as achieving cost-effective access to learning, rather than the pedagogic principle of attaining a deeper understanding of a subject. Like any form of learning, eLearning is based on the assumption that specific learning outcomes will be

achieved. It is therefore crucial that when developing eLearning programmes that the design and format are mapped onto learning theory. The literature on learning theory is vast and beyond the scope of this paper. However, a number of learning effects may be of particular importance when considering the application of eLearning to training in ESPTs. For instance, the worked-example effect is a learning effect predicted by Cognitive Load Theory (Sweller, 1988) whereby learning occurs when worked-examples are used as part of the instruction. This effect is premised on the reduction of cognitive load during skill acquisition by providing the learner with step-by-step instructions in order to reduce extraneous and intrinsic load, whilst increasing germane load in the initial stages of learning. It is suggested that in order to transition from skill acquisition to consolidation, worked-examples should be successively faded out (Renkl, Atkinson, & Grobe, 2004) and elements of self-explanation incorporated into the learning model (Renkl, 2005). However, it remains unclear at what stage it is best to use fading versus self-explanation. It is likely that the most opportune timing in which these elements of learning are introduced will depend on the topic of learning. Given that learning ESPTs is a complex endeavor, requiring proficiency in a number of hard and soft skills (McMillen, Hawley, & Proctor, 2015), provision of worked examples that elucidate the steps needed to arrive at a particular solution should be incorporated into eLearning methods to help reduce cognitive load and facilitate learning.

Although, the worked examples effect is well established and has been shown to have positive effects on learning, research by Kalyuga (2007) suggests that the effect is dependent upon the expertise of the learner. This is known as the expertise reversal effect whereby instructional methods, such as worked examples, are most beneficial for novice learners. Conversely, reduced instructional guidance often results in better performance for more

knowledgeable learners. Expertise reversal effects are particularly relevant to instruction of ESPTs given that a significant proportion of learners will be experienced clinicians. This type of learning effect has strong implications for the design of eLearning strategies for ESPTs and highlights the need for considering learner needs and existing skill prior to commencing training. Thus, it may be that early stages of instruction that focus on worked examples are redundant for learners with greater existing knowledge or skill, which may account for the differences found in the effectiveness of eLearning methods between student and clinicians (Feng et al., 2013). It is clear that a one-size-fits-all approach to learning does not suit all. Thus, training in ESPTs needs to be more flexible and should potentially include prior assessment of expertise and permit dynamic adjustment of instruction to learners' level of expertise (Merrienboer & Sweller, 2005); elements that could easily be achieved via eLearning technology. However, whilst the practical advantages of providing ESPT training via eLearning are evident, instructional designs should also be based on theoretical pedagogic principles so as to facilitate deeper understanding of learning content.

Implementing DBT

Much of the research examining factors that influence implementation of EBPs has been retrospective. In order to advance understanding of the factors that aid or hinder successful implementation of DBT into routine health settings, prospective experimental studies investigating predictive models of implementation components within different contexts is needed to understand what works where and why. Such research should span a number of years and include assessment of organisational needs and capacity, evaluation of implementation processes, and evaluation of outcome and impact. Moreover, future research

should be guided by the application of a conceptual framework in order to advance theoretical understanding of implementation.

In the current study, the CFIR was utilised as a scoping tool to guide exploration of potential influences on implementation of DBT programmes within UK healthcare settings. Results indicated a number of salient constructs from which to build a foundation for understanding implementation. Future research should expand on these findings by adapting and operationally defining each construct, as it relates specifically to implementing DBT. Refinement of the framework in this way will help to guide consideration of how each construct should be evaluated and within which level of the organsiation (e.g. individuals, teams, site, and wider system). Refining implementation constructs, as they apply to DBT programmes, will aid the development of reliable and valid assessment tools that can be applied across varying treatment contexts. Doing so will enable empirical testing and hypothesis-driven research seeking to examine variables that potentially moderate implementation and clinical outcomes, such as the level of supervision, consultation, treatment fidelity, or adaptation required to optimise implementation success or minimise failure.

Effectiveness studies are another important area for future research. Given that the quality of the evidence base was commonly cited within the empirical paper as aiding implementation of DBT programmes, particularly when used as a means to secure organisational investment, further effectiveness data would help to support the case for adoption and feasibility of implementation within fields with an emerging evidence base (e.g. older adults).

Finally, arguably the most important aspect of implementing any ESPT into practice is whether it produces the desired outcomes for clients. This is an essential area to consider for future research, as a treatment can be effectively embedded into practice without resulting in sufficient levels of penetration and/or improvement in client's lives. Nevertheless, given that it takes approximately 2-4 years to achieve full implementation of an ESPT (Fixsen, Blase, Bloom, Wallace, 2009), measuring client outcomes during this phase may result in misleading conclusions being drawn about effectiveness. Therefore, assessment of implementation outcomes may be more appropriate at this stage with subsequent collection of client outcomes to measure against sustainability practices.

Finally, it is clear that gaining stakeholder support is essential to implementing and sustaining EBPs. Thus, research is needed to investigate the most effective means to do so. Stakeholders may priortise certain implementation outcomes over others, and differ somewhat from those that are salient to treatment developers or providers. The success of implementation efforts may rest on their compatibility with competing priorities. Therefore, future research should seek to identify important implementation factors across stakeholder groups to maximise the applicability of outcomes across a range of settings. This gap in the literature would benefit from an in-depth mixed-methodology approach aimed at building a rich picture of process and impact.

Implications for clinical practice

eLearning

eLearning may benefit clinical practice in a variety of ways. Its accessibility and flexibility, compared to other methods of instruction, can facilitate new learning and continued

professional development. It also has the potential to overcome commonly identified barriers to implementation by providing a scalable and relatively low-cost method of dissemination and training in ESPTs. Various information technology formats could be used to provide expert supervision and consultation, booster training modules, and DBT networks. Furthermore, implementation assessment tools and outcome data could be stored in a central digital repository to enable ongoing monitoring and evaluation of implementation efforts.

Notwithstanding these benefits, moving towards online modes of learning and working is a change in practice in and of itself, which is likely to be met with its own barriers to implementation. Many of the aforementioned benefits that could be derived from utilising various eLearning formats require an IT infrastructure that is compatible with and able to support up-to-date programme software. Implementing technology-enabled service improvements is likely to be a complex process for which the benefits would need to be clearly identified and evaluated. Nevertheless, if ESPTs are to achieve their desired public health impact, organisations should take a holistic approach towards implementation of innovations and recognise that change in one system invariably requires essential change in another.

Implementing DBT

Findings from the empirical study suggest a number of considerations for implementing DBT into clinical practice. The process of implementation can be divided into several interrelated phases. Thus, implications for clinical practice are considered within each phase:

Capacity/needs assessment

Establishing an organisational need for the provision of a DBT programme is a foremost consideration, as without a clear rationale of why DBT is needed, implementation efforts are less likely to succeed. Also, whilst an organisation may seek the potential benefits from implementing DBT, it may not necessarily be a good fit for the organisation. For example, factors such as absorptive capacity, readiness for change, and the receptive context will all have a bearing on whether an innovation can be successfully implemented. Demands for practice change can sometimes arise as a response to sociopolitical forces, prompting organisations to quickly move to active implementation. However, it is crucial that a multilevel assessment of the wider system, organisation, provider, and client characteristics is carried out so that explicit links to organisational needs and goals are made. Indeed, the CFIR would be a useful tool to guide such assessments, allowing for the identification of competing goals, as well as the potential barriers and facilitators to implementation from the perspective of each level.

Active implementation phase

During this phase, it is important to monitor progress towards implementation outcomes. Such outcomes are distinct from service and client outcomes and should be identified at the preparation phase. Also, because of the dynamic nature of healthcare services, unanticipated influences that can either positively or negatively affect implementation efforts may arise, which should also be closely monitored. For example, a preparatory assessment prior to implementation may identify a baseline level of allocated time required for each clinician to effectively deliver DBT. During the course of implementation, the loss of a non-DBT trained practitioner within a service may impact upon a trained clinician's capacity to devote

sufficient clinical time to delivering the programme, due to unanticipated restructuring of job roles. This may potentially have a detrimental effect on implementation success. However, if such potential influences are considered at the planning stages, there is greater opportunity to address then in a timely manner before threatening a programme's viability. Conceptual frameworks, such as the CFIR, will help organisations to operationally define implementation constructs and determine how effectiveness can be measured. By distinguishing between implementation effectiveness and treatment effectiveness, organisations will be better positioned to determine whether implementation failed because DBT was ineffective (intervention failure) or if DBT was integrated ineffectively (implementation failure).

Post-implementation phase

Sustainment of practice is the desired outcome of effective implementation. During this phase, services should monitor factors that support sustainment of DBT programmes in their service setting. These factors may initially be identified at the planning stage and refined following monitoring of implementation outcomes. For example, a service may commence implementation with an intention to adapt the DBT model after the initial training period. However, outcome monitoring during the active implementation phase may reveal areas where deviation from the model reduces implementation effectiveness and ultimately programme effectiveness. In this instance, ongoing fidelity monitoring and support may warrant particular consideration to support long-term programme maintenance. Conversely, some programmes may find adaptation to the DBT model necessary to meet local need and sustain practice. Thus, the heterogeneity between and within contexts is why implementation of ESPTs should be considered as an evolving process, rather than a discrete event. Finally, once full implementation has been achieved, the initial implementation model can be utilised

to develop models for expansion and scaling-up within a service, or as a guiding framework for implementing other types of innovation.

Personal reflection

Conducting research on implementation has made me reflect on the ways in which I go about applying the knowledge that I have learned from training to my practice with clients. As a trainee, you are keen to develop new skills and put them into practice but not necessarily always with a clear rationale for doing so. At times, certain psychotherapy models or strategies I employed have been ineffective, potentially running the risk of avoiding their use in the future. However, I now feel able to consider the application of implementation constructs at a micro level whereby comprehensive assessment, formulation, and ongoing monitoring of treatment strategy are analogous to assessment of organisational need and readiness, and execution of implementation plans. Hopefully, in doing so, I am better positioned to distinguish between an implementation failure and intervention failure. In addition, examining the processes involved in implementing a comprehensive programme such as DBT has provided me with great insight into the complexities of organisational systems. This has led to deeper consideration of the ways in which my own contributions within a system can impact across many levels and how this can be built upon to effect change. I feel this knowledge and the lessons I have learned through the planning, execution, and write-up of this project will benefit me throughout my career.

References

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Section 4: Ethical Application and Approval

Application for Ethical Approval

Project Title: Implementing Dialectical Behaviour Therapy in UK Healthcare Settings **Principal investigator:** King, Joanne**Other researchers:** Swales,Michaela

Pre-screen Questions

Type of Project

D.Clin.Psy

What is the broad area of research

Clinical/Health

Funding body

Internally Funded

Type of application (check all that apply)

Project requiring scrutiny from an outside body which has its own ethical forms and review procedures

Proposed methodology (check all that apply)

Questionnaires and Interviews

Do you plan to include any of the following groups in your study?

Does your project require use of any of the following facilities and, if so, has the protocol been reviewed by the appropriate expert/safety panel? If yes please complete Part 2:B

If your research requires any of the following facilities MRI, TMS/ tCS, Neurology Panel, has the protocol been reviewed by the appropriate expert/safety panel?Not applicable (the research does not require special safety panel approval)

Connection to Psychology, (i.e. why Psychology should sponsor the question)

Investigator is a student in Psychology (including the North Wales Clinical Psychology Programme)

Does the research involve NHS patients? (NB: If you are conducting research that requires NHS ethics approval make sure to consult the Psychology Guidelines as you may not need to complete all sections of the Psychology online application)No

Has this proposal been reviewed by another Bangor University Ethics committee?

No

NHS checklist. Does your study involve any of the following?

Use of NHS Staff or resources e.g. recruitment through the NHS, access to Medical records, use of premises etc.

Part 1: Ethical Considerations

Will you describe the main experimental procedures to participants in advance, so that they are informed about what to expect?Yes

Will you tell participants that their participation is voluntary?

Yes

Will you obtain written consent for participation?

Yes

If the research is observational, will you ask participants for their consent to being observed?N/A

Will you tell participants that they may withdraw from the research at any time and for any reason?Yes

With questionnaires, will you give participants the option of omitting questions they do not want to answer?Yes

Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?Yes

Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?Yes

Will your project involve deliberately misleading participants in any way?

No

Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort? If *Yes* , give details and state what you will tell them to do should they experience any problems (e.g., who they can contact for help)No

Is there any realistic risk of any participants experiencing discomfort or risk to health, subsequent illness or injury that might require medical or psychological treatment as a

result of the procedures?No

Does your project involve work with animals? If *Yes* please complete Part 2: B

No

Does your project involve payment to participants that differs from the normal rates? Is there significant concern that the level of payment you offer for this study will unduly influence participants to agree to procedures they may otherwise find unacceptable? If *Yes* please complete Part 2: B and explain in point 5 of the full protocol

No

If your study involves children under 18 years of age have you made adequate provision for child protection issues in your protocol?N/A

If your study involves people with learning difficulties have you made adequate provision to manage distress?N/A

If your study involves participants covered by the Mental Capacity Act (i.e. adults over 16 years of age who lack the mental capacity to make specific decisions for themselves) do you have appropriate consent procedures in place? NB Some research involving participants who lack capacity will require review by an NHS REC. If you are unsure about whether this applies to your study, please contact the Ethics Administrator in the first instance

N/A

If your study involves patients have you made adequate provision to manage distress?

N/A

Does your study involve people in custody?

No

If your study involves participants recruited from one of the Neurology Patient Panels or the Psychiatry Patient Panel then has the protocol been reviewed by the appropriate expert/safety panel?N/A

If your study includes physically vulnerable adults have you ensured that there will be a person trained in CPR and seizure management at hand at all times during testing?N/A

Is there significant potential risk to investigator(s) of allegations being made against the investigator(s). (e.g., through work with vulnerable populations or context of research)? No

Is there significant potential risk to the institution in any way? (e.g., controversiality or

potential for misuse of research findings.)No

Part 3: Risk Assessment

Is there significant potential risk to participants of adverse effects?

No

Is there significant potential risk to participants of distress?

No

Is there significant potential risk to participants for persisting or subsequent illness or injury that might require medical or psychological treatment?No

Is there significant potential risk to investigator(s) of violence or other harm to the investigator(s) (e.g., through work with particular populations or through context of research)?No

Is there significant potential risk to other members of staff or students at the institution? (e.g., reception or other staff required to deal with violent or vulnerable populations.)No

Does the research involve the investigator(s) working under any of the following conditions: alone; away from the School; after-hours; or on weekends?No

Does the experimental procedure involve touching participants?

No

Does the research involve disabled participants or children visiting the School?

No

Declaration

Declaration of ethical compliance: This research project will be carried out in accordance with the guidelines laid down by the British Psychological Society and the procedures determined by the School of Psychology at Bangor. I understand that I am responsible for the ethical conduct of the research. I confirm that I am aware of the requirements of the Data Protection Act and the University's Data Protection Policy, and that this research will comply with them.

Yes

Declaration of risk assessment The potential risks to the investigator(s) for this research project have been fully reviewed and discussed. As an investigator, I understand that I am

responsible for managing my safety and that of participants throughout this research. I will immediately report any adverse events that occur as a consequence of this research.

Yes

Declaration of conflict of interest: To my knowledge, there is no conflict of interest on my part in carrying out this research.Yes

Part 2: A

The potential value of addressing this issue

Further details: See supporting document 'IRAS Form'.

Hypotheses

Further details: See supporting document 'IRAS Form'.

Participants recruitment. Please attach consent and debrief forms with supporitng documentsFurther details: See supporting documents 'IRAS Form', 'Information Sheet', and 'Opt-in Form'.

Research methodologyEstimated start date and duration of the study.

Further details: See supporting document 'IRAS Form'.

For studies recruiting via SONA or advertising for participants in any way please provide a summary of how participants will be informed about the study in the advertisement. N.B. This should be a brief factual description of the study and what participants will be required to do.

Further details: N/A

Part 2: B

Brief background to the study

The hypotheses

Participants: recruitment methods, age, gender, exclusion/inclusion criteria

Research design

Procedures employed

Measures employed

Qualifications of the investigators to use the measures (Where working with children or vulnerable adults, please include information on investigators' CRB disclosures here.)

Venue for investigation

Estimated start date and duration of the study (N.B. If you know that the research is likely to continue for more than three years, please indicate this here).

Data analysisPotential offence/distress to participantsProcedures to ensure confidentiality and data protection

How consent is to be obtained (see BPS Guidelines and ensure consent forms are expressed bilingually where appropriate. The University has its own Welsh translations facilities on extension 2036)

Information for participants (provide actual consent forms and information sheets) including if appropriate, the summary of the study that will appear on SONA to inform participants about the study. N.B. This should be a brief factual description of the study and what participants will be required to do.

Approval of relevant professionals (e.g., GPs, Consultants, Teachers, parents etc.) Payment to: participants, investigators, departments/institutionsEquipment required and its availability

If students will be engaged a project involving children, vulnerable adults, one of the neurology patient panels or the psychiatric patient panel, specify on a separate sheet the arrangements for training and supervision of students. (See guidance notes)

If students will be engaged in a project involving use of MRI or TMS, specify on a separate sheet the arrangements for training and supervision of students. (See guidance notes)

What arrangements are you making to give feedback to participants? The responsibility is yours to provide it, not participants' to request it.

Finally, check your proposal conforms to BPS Guidelines on Ethical Standards in research and sign the declaration. If you have any doubts about this, please outline them.

Part 4: Research Insurance

Is the research to be conducted in the UK?

Yes

Is the research based solely upon the following methodologies? Psychological activity, Questionnaires, Measurements of physiological processes, Venepuncture, Collections of body secretions by non-invasive methods, The administration by mouth of foods or

nutrients or variation of diet other than the administration of drugs or other food supplements

Yes

Research that is based solely upon certain typical methods or paradigms is less problematic from an insurance and risk perspective. Is your research based solely upon one or more of these methodologies? Standard behavioural methods such as questionnaires or interviews, computer-based reaction time measures, standardised tests, eye-tracking, picture-pointing, etc; Measurements of physiological processes such as EEG, MEG, MRI, EMG, heart-rate, GSR (not TMS or tCS as they involve more than simple 'measurement'); Collections of body secretions by non-invasive methods, venepuncture (taking of a blood sample), or asking participants to consume foods and/or nutrients (not including the use of drugs or other food supplements or caffine).Yes

National Health Service Research Ethics Committee Application

Welcome to the Integrated Research Application System

IRAS Project Filter

The integrated dataset required for your project will be created from the answers you give to the following questions. The system will generate only those questions and sections which (a) apply to your study type and (b) are required by the bodies reviewing your study. Please ensure you answer all the questions before proceeding with your applications.

Please complete the questions in order. If you change the response to a question, please select 'Save' and review all the questions as your change may have affected subsequent questions.

Please enter a short title for this project (maximum 70 characters)
Implementing DBT in UK healthcare settings

1. Is your project research?

(●) Yes ( ) No

2. Select one category from the list below:

( ) Clinical trial of an investigational medicinal product

( ) Clinical investigation or other study of a medical device

( ) Combined trial of an investigational medicinal product and an investigational medical device

( ) Other clinical trial to study a novel intervention or randomised clinical trial to compare interventions in clinical practice

( ) Basic science study involving procedures with human participants

(●) Study administering questionnaires/interviews for quantitative analysis, or using mixed quantitative/qualitative methodology

( ) Study involving qualitative methods only

( ) Study limited to working with human tissue samples (or other human biological samples) and data (specific project only)

( ) Study limited to working with data (specific project only)

( ) Research tissue bank

( ) Research database

If your work does not fit any of these categories, select the option below:

2a. Please answer the following question(s):

a) Does the study involve the use of any ionising radiation? ○ Yes ◉ No

b) Will you be taking new human tissue samples (or other human biological samples)? ○ Yes ◉ No

c) Will you be using existing human tissue samples (or other human biological samples)? ○ Yes ◉ No

3. In which countries of the UK will the research sites be located? *(Tick all that apply)*

- England
- Scotland
- Wales
- Northern Ireland

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3a. In which country of the UK will the lead NHS R&D office be located:

- ○ England
- ○ Scotland
- ◉ Wales
- ○ Northern Ireland
- ○ This study does not involve the NHS

4. Which review bodies are you applying to?

HRA Approval
NHS/HSC Research and Development offices
Social Care Research Ethics Committee
Research Ethics Committee
Confidentiality Advisory Group (CAG)
National Offender Management Service (NOMS) (Prisons & Probation)

For NHS/HSC R&D offices, the CI must create Site-Specific Information Forms for each site, in addition to the study-wide forms, and transfer them to the PIs or local collaborators.

It looks like your project is research requiring NHS R&D approval but does not require review by a REC within the UK Health Departments Research Ethics Service – is that right?

◉ Yes ○ No

4b. Please confirm the reason(s) why the project does not require review by a REC within the UK Health Departments Research Ethics Service:

- ☐ Projects limited to the use of samples/data samples provided by a Research Tissue Bank (RTB) with generic ethical approval from a REC, in accordance with the conditions of approval.
- ☐ Projects limited to the use of data provided by a Research Database with generic ethical approval from a REC, in accordance with the conditions of approval.
- ☐ Research limited to use of previously collected, non-identifiable information
- ☐ Research limited to use of previously collected, non-identifiable tissue samples within terms of donor consent
- ☐ Research limited to use of acellular material
- ☐ Research limited to use of the premises or facilities of care organisations (no involvement of patients/service users as participants)
- ☑ Research limited to involvement of staff as participants (no involvement of patients/service users as participants)

5. Will any research sites in this study be NHS organisations?

◉ Yes ○ No

6. Do you plan to include any participants who are children?

○ Yes ◉ No

7. Do you plan at any stage of the project to undertake intrusive research involving adults lacking capacity to consent for themselves?

○ Yes ◉ No

Answer Yes if you plan to recruit living participants aged 16 or over who lack capacity, or to retain them in the study following loss of capacity. Intrusive research means any research with the living requiring consent in law. This includes use of

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identifiable tissue samples or personal information, except where application is being made to the Confidentiality Advisory Group to set aside the common law duty of confidentiality in England and Wales. Please consult the guidance notes for further information on the legal frameworks for research involving adults lacking capacity in the UK.

8. Do you plan to include any participants who are prisoners or young offenders in the custody of HM Prison Service or who are offenders supervised by the probation service in England or Wales?

○ Yes ◉ No

9. Is the study or any part of it being undertaken as an educational project?

◉ Yes ○ No

Please describe briefly the involvement of the student(s):
Study will be undertaken by a doctoral student in clinical psychology.

9a. Is the project being undertaken in part fulfilment of a PhD or other doctorate?

◉ Yes ○ No

10. Will this research be financially supported by the United States Department of Health and Human Services or any of its divisions, agencies or programs?

○ Yes ◉ No

11. Will identifiable patient data be accessed outside the care team without prior consent at any stage of the project (including identification of potential participants)?

○ Yes ◉ No

Integrated Research Application System
Application Form for Research administering questionnaires/interviews for quantitative analysis or mixed methodology study

The Chief Investigator should complete this form. Guidance on the questions is available wherever you see this symbol displayed. We recommend reading the guidance first. The complete guidance and a glossary are available by selecting Help.

Please define any terms or acronyms that might not be familar to lay reviewers of the application.

Short title and version number: (maximum 70 characters - this will be inserted as header on all forms)
Implementing DBT in UK healthcare settings

PART A: Core study information

1. ADMINISTRATIVE DETAILS

A1. Full title of the research:

Implementing Dialectical Behavioural Therapy in Routine UK Healthcare Settings.

A2-1. Educational projects

Name and contact details of student(s):

Student 1

	Title	Forename/Initials	Surname
	Ms	Joanne	King
Address	North Wales Clinical Psychology Programme		
	School of Psychology, Bangor University		
	43 College Road, Bangor, Gwynedd		
Post Code	LL57 2DG		
E-mail	psp2da@bangor.ac.uk		
Telephone	01248382205		
Fax			

Give details of the educational course or degree for which this research is being undertaken:

Name and level of course/ degree:
Doctorate in Clinical Psychology

Name of educational establishment:
Bangor University

Name and contact details of academic supervisor(s):

Academic supervisor 1

	Title	Forename/Initials	Surname
	Dr	Michaela	Swales
Address	North Wales Clinical Psychology Programme		

	School of Psychology, Bangor University
	43 College Road, Bangor, Gwynedd
Post Code	LL57 2DG
E-mail	m.swales@bangor.ac.uk
Telephone	01248382205
Fax	

Please state which academic supervisor(s) has responsibility for which student(s):
Please click "Save now" before completing this table. This will ensure that all of the student and academic supervisor details are shown correctly.

Student(s)	Academic supervisor(s)
Student 1 Ms Joanne King	☑ Dr Michaela Swales

A copy of a current CV for the student and the academic supervisor (maximum 2 pages of A4) must be submitted with the application.

A2-2. Who will act as Chief Investigator for this study?

- (●) Student
- ( ) Academic supervisor
- ( ) Other

A3-1. Chief Investigator:

	Title	Forename/Initials	Surname
	Ms	Joanne	King

Post	Trainee Clinical Psychologist
Qualifications	BSc Applied Psychology MSc Forensic Psychology
Employer	Betsi Cadwaladr University Health Board
Work Address	North Wales Clinical Psychology Programme
	School of Psychology, Bangor University
	43 College Road, Bangor, Gwynedd
Post Code	LL57 2DG
Work E-mail	psp2da@bangor.ac.uk
* Personal E-mail	
Work Telephone	01248382205
* Personal Telephone/Mobile	07988532245
Fax	

** This information is optional. It will not be placed in the public domain or disclosed to any other third party without prior consent.*
A copy of a current CV (maximum 2 pages of A4) for the Chief Investigator must be submitted with the application.

A4. Who is the contact on behalf of the sponsor for all correspondence relating to applications for this project?
This contact will receive copies of all correspondence from REC and HRA/R&D reviewers that is sent to the CI.

Title Forename/Initials Surname

	Mr Hefin Francis
Address	School Manager, School of Psychology
	Adeilad Brigantia, Penrallt Road
	Bangor, Gwynedd
Post Code	LL57 2AS
E-mail	h.francis@bangor.ac.uk
Telephone	01248388339
Fax	

A5-1. Research reference numbers. *Please give any relevant references for your study:*

Applicant's/organisation's own reference number, e.g. R & D (if available):

Sponsor's/protocol number:

Protocol Version:

Protocol Date:

Funder's reference number:

Project website:

Additional reference number(s):

Ref.Number	Description	Reference Number

Registration of research studies is encouraged wherever possible. You may be able to register your study through your NHS organisation or a register run by a medical research charity, or publish your protocol through an open access publisher. If you have registered your study please give details in the "Additional reference number(s)" section.

A5-2. Is this application linked to a previous study or another current application?

○ Yes ◉ No

Please give brief details and reference numbers.

2. OVERVIEW OF THE RESEARCH

To provide all the information required by review bodies and research information systems, we ask a number of specific questions. This section invites you to give an overview using language comprehensible to lay reviewers and members of the public. Please read the guidance notes for advice on this section.

A6-1. Summary of the study. *Please provide a brief summary of the research (maximum 300 words) using language easily understood by lay reviewers and members of the public. Where the research is reviewed by a REC within the UK Health Departments' Research Ethics Service, this summary will be published on the Health Research Authority (HRA) website following the ethical review. Please refer to the question specific guidance for this question.*

Dialectical Behaviour Therapy (DBT) is a psychological therapy originally developed for adult women with a diagnosis of Borderline Personality Disorder (BPD) who also presented with chronic self-harm and suicidal behaviours. DBT was the first psychological therapy with demonstrable efficacy in the treatment of clients with a diagnosis of BPD and, since the original efficacy trial (Linehan et al., 1991), has become one of the best-evidenced psychological treatments for this client group (Stoffers, 2012).

Despite the demonstrable efficacy of DBT, successful implementation and long-term sustainability of evidenced-based practices in routine healthcare settings can be difficult to achieve. Preliminary research into the survivability of DBT programmes that underwent intensive training within the UK between 1995 and 2007 confirmed that some programmes had difficulty sustaining (Swales et al., 2012).

The gap between evidence-based innovations and what is applied in routine practice to achieve important health and

behavioural outcomes is widely acknowledged (Fixsen et al., 2005). This has led to a growing body of literature examining the factors involved in the successful implementation of evidence-based interventions (Stirman, 2012). Historically, more attention has been paid to the nature of the evidence about interventions. However, from an implementation perspective, having a strong evidence base for an intervention does not lead to more successful implementation. Whilst an existing evidence base might help a consumer or agency to select a particular type of intervention, information regarding its efficacy will not help put it into practice. Therefore, understanding the factors that help or hinder successful implementation and sustainability is crucial for enhancing service provision and health outcomes.

Considering the changing nature of healthcare provision and systems, the current study will follow on from the aforementioned preliminary research (Swales et al., 2012)and aims to explore the factors hindering and facilitating sustainability of DBT programmes who underwent intensive training within the UK.

A6-2. Summary of main issues. *Please summarise the main ethical, legal, or management issues arising from your study and say how you have addressed them.*

Not all studies raise significant issues. Some studies may have straightforward ethical or other issues that can be identified and managed routinely. Others may present significant issues requiring further consideration by a REC, R&D office or other review body (as appropriate to the issue). Studies that present a minimal risk to participants may raise complex organisational or legal issues. You should try to consider all the types of issues that the different reviewers may need to consider.

Participants will be NHS healthcare professionals, therefore there is a chance that potential participants may feel obliged to participate in the study because of their job role. The participant information sheet will outline choice to participate and how choosing not to participate or withdrawing from the study will not affect their employment or links with the university. During recruitment, all potential participants will be emailed information packs with information sheets and opt-in forms. Those people interested in participating will be required to return the opt-in forms by email within a specified date. If there has been no contact from a potential participant by this date, the researcher will make telephone contact to determine whether they wish to participate in the study. For potential participants where a current email address does not exist, initial contact will be made via telephone to inform them of the study, and if interested will be forwarded an information pack. All participant contact information will be obtained from DBT Training British Isles database, in which previous consent has been given to be contacted about DBT training and information relevant to its use.

Whilst it is not especially likely, in discussing challenges of implementing DBT participants may reflect on job stresses and difficulties, which they may find distressing. The researcher will be sensitive to the emotional state of the participant at all times during the study and be flexible in taking breaks or stopping the interview completely if the participant becomes distressed. The researcher is a trainee clinical psychologist and has the necessary skills to manage high levels of emotion or distress.

Participants may feel reluctant to give honest reports of their experiences, particularly if discussing attitudes or challenges faced. The participant information sheet will make it clear that the research will be anonymous and participation in the study will not affect participant's employment or links with the university. This will also be explained at the commencement of the interview.

The anonymity of the data could be compromised by the fact that Dr Michaela Swales, the research supervisor, is also the lead DBT trainer in the UK and may know some of the participants. The researcher will overcome this by removing any identifying information and making specific words more general in any passages before sharing information
during the analysis stage.

The duration of time that participants will be expected to devote to the study (2-3 hours) may represent a significant burden for busy clinicians. This will be minimised by offering participants a preferred date and time for the telephone interview. Also, the participants involved in the previous study (Swales et al., 2012) reported that the opportunity to reflect on their implementation experience was helpful

3. PURPOSE AND DESIGN OF THE RESEARCH

A7. Select the appropriate methodology description for this research. *Please tick all that apply*:

- ☐ Case series/ case note review
- ☐ Case control

- [ ] Cohort observation
- [ ] Controlled trial without randomisation
- [ ] Cross-sectional study
- [x] Database analysis
- [ ] Epidemiology
- [ ] Feasibility/ pilot study
- [ ] Laboratory study
- [ ] Metanalysis
- [ ] Qualitative research
- [x] Questionnaire, interview or observation study
- [ ] Randomised controlled trial

A10. What is the principal research question/objective? *Please put this in language comprehensible to a lay person.*

What factors aid or hinder successful implementation and sustainability of DBT programmes in UK routine healthcare settings?

A11. What are the secondary research questions/objectives if applicable? *Please put this in language comprehensible to a lay person.*

1. Are there any differences between DBT programmes trained on-site or off-site in their ability to implement DBT and sustain?

A12. What is the scientific justification for the research? *Please put this in language comprehensible to a lay person.*

The gap between evidence-based innovations and what is applied in routine practice to achieve important health and behavioural outcomes is widely acknowledged (Fixsen et al., 2005). This has led to a growing body of literature examining the factors involved in the successful implementation of evidence-based interventions (Stirman, 2012). Historically, more attention has been paid to the nature of the evidence about interventions. However, from an implementation perspective, having a strong evidence base for an intervention does not lead to more successful implementation. Whilst an existing evidence base might help a consumer or agency to select a particular type of intervention, information regarding its efficacy will not help put it into practice. Thus, the implementation of evidence-based programmes is an entirely different endeavour altogether.

Despite the necessary shift towards consideration of implementation procedures, the process of implementing an innovation remains an unquestionably complex task, due to required changes in service provider behaviour, transformation of systems, and organisational restructuring. Influences on implementation generally relate to the context (outer and inner), the innovation itself (fit, adaptability, effectiveness), processes (fidelity monitoring, evaluation), and the capacity to sustain (funding, resources, workforce characteristics etc.; Stirman, 2012). These components are also considered to be interrelated and a change in one component may result in change in others. Therefore, due to the dynamic nature of healthcare systems and their external contexts, a given programme or practice may require more or less of a component in order to be successfully implemented and sustained. Clearly, local and national policies aimed at improving human services require more effective and efficient methods for translating evidenced-based treatments into the actions that will realise them.

In 2009, the National Institute of Health and Clinical Excellence (NICE) recommended that practitioners consider the use of DBT for women with a diagnosis of borderline personality disorder and recurrent self-harm. Preliminary analyses of outcome data indicate that that DBT has the potential for cost-effectiveness as a result of decreases in suicidal behaviour and associated hospital visits and inpatient stays (Brazier et al., 2006). Thus, the successful implementation of DBT programmes in routine healthcare settings has the potential to provide an efficient and cost-effective intervention for traditionally 'difficult to treat' patients. Nevertheless, DBT is a comprehensive treatment programme that is delivered by a specialist trained team, which requires reorganisation of services and a commitment to delivering an intensive intervention. This may result in major changes and prove a difficult endeavour for some services. Therefore, understanding the factors that influence the successful implementation and sustainability of DBT programmes is not only strategically important for the development of effective healthcare but also scientifically important because it identifies the behaviour of healthcare professionals and organisations as sources of variance requiring improved theoretical and empirical understanding before successful implementation of

treatment can be reliably achieved.

A13. Please summarise your design and methodology. *It should be clear exactly what will happen to the research participant, how many times and in what order. Please complete this section in language comprehensible to the lay person. Do not simply reproduce or refer to the protocol. Further guidance is available in the guidance notes.*

Participants:
Participants will be all UK-based DBT programmes that have completed or commenced at National DBT Intensive Training. Where possible, data will be collected from the DBT team leader. If the team leader is unavailable, data will be collected from another current team member or any former member of inactive teams. Due to the criteria for attending DBT training, all participants will be healthcare professionals (HCPs).

Contact information of potential participants will be accessed via the DBT Training British Isles database. This organisation is the sole licensed provider of DBT training within the United Kingdom and Ireland. All potential participants will be contacted by email or telephone and provided with an information pack including details of the study and opt-in forms. Those willing to participate will be required to return the opt-in forms via email to express their interest in participating in the study within a specified time period. If potential participants have not returned opt-in forms by this date, the researcher will make contact via telephone to determine whether they wish to participate. Telephone contact is an additional step to increase the number of participants recruited, as the previous study (Swales et al., 2012) found a higher return rate via telephone contact. HCPs interested in participating will be contacted by telephone and provided with further information about the study, consent, and procedures. Consent will be recorded over the telephone before the commencement of interview.

Design and Procedure:
This study will follow on from preliminary research by Swales et al. (2012) in which a telephone survey was conducted to examine the survivability of DBT programmes within the UK. Based on their findings, DBT Training was adapted to offer teams the choice to be trained on-site (i.e. within their service setting) or off-site. The current study seeks to explore differences, if any, in the ability to implement or sustain based on training site. Similar to Swales and colleagues' study, a mixed-methods approach will be employed in which descriptive data will be collected to determine how many DBT programmes are currently active or inactive. A survivability curve will be constructed for this data and a quantitative analysis of survivability rates between programmes trained on-site or off-site will be carried out. A semi- structured interview will also be conducted to explore the reasons for programme failure or success. Interview responses will be analysed for emerging themes and commonalities.

Measures:
Some demographic information will be collected from participants (e.g. programme status, professional make-up of team, programme duration).

Individual semi-structured telephone interviews will be held with each participant. The interview will be used to explore the following aspects of DBT programmes: clinical setting, the team's experience of delivering DBT, comprehensiveness and fidelity of treatment, treatment outcomes, and any other factors that may be related to implementation of DBT within their setting.

Interviews are expected to last one hour. All responses will be typed at time of interview and analysed at a later date.

Data Management:
Data will be kept in accordance with Bangor University procedures. Data will be stored on an encrypted USB device. Each participant will be assigned a research identification number so that all data will be anonymised and non-identifiable. Interview transcripts will be stored in password-protected files with identifiers removed. In accordance with Bangor University procedures, anonymised data will be held securely for five years to be available for scrutiny following publication.

Data analysis:
Descriptive data will be collected on demographic variables and a survival curve calculation will be conducted to determine the survivability of programmes. The survival curve calculation constructs a series of time lines for each programme delineated by its start date and its cessation date, if the programme is inactive. Each timeline is recalibrated to start at the same time so that programme length to cessation can be clearly seen. Multiplying together the proportions of survivors up to and including the failure time provides the estimate of the survival curve at cessation points.

A content analysis will be carried out on data collected from the semi-structured interviews to look at emerging themes and commonalities between responses.

A14-1. In which aspects of the research process have you actively involved, or will you involve, patients, service users, and/or their carers, or members of the public?

- ☐ Design of the research
- ☐ Management of the research
- ☐ Undertaking the research
- ☐ Analysis of results
- ☐ Dissemination of findings
- ☑ None of the above

Give details of involvement, or if none please justify the absence of involvement.

4. RISKS AND ETHICAL ISSUES

RESEARCH PARTICIPANTS

A15. What is the sample group or cohort to be studied in this research?

Select all that apply:

- ☐ Blood
- ☐ Cancer
- ☐ Cardiovascular
- ☐ Congenital Disorders
- ☐ Dementias and Neurodegenerative Diseases
- ☐ Diabetes
- ☐ Ear
- ☐ Eye
- ☑ Generic Health Relevance
- ☐ Infection
- ☐ Inflammatory and Immune System
- ☐ Injuries and Accidents
- ☑ Mental Health
- ☐ Metabolic and Endocrine
- ☐ Musculoskeletal
- ☐ Neurological
- ☐ Oral and Gastrointestinal
- ☐ Paediatrics
- ☐ Renal and Urogenital
- ☐ Reproductive Health and Childbirth
- ☐ Respiratory
- ☐ Skin
- ☐ Stroke

Gender: Male and female participants

A17-1. Please list the principal inclusion criteria (list the most important, max 5000 characters).

Any DBT programme trained by DBT Training British Isles.

A17-2. Please list the principal exclusion criteria (list the most important, max 5000 characters).

Nonfluent English speaker.
Significant communication or intellectual disability.

RESEARCH PROCEDURES, RISKS AND BENEFITS

A18. Give details of all non-clinical intervention(s) or procedure(s) that will be received by participants as part of the research protocol. *These include seeking consent, interviews, non-clinical observations and use of questionnaires.*

Please complete the columns for each intervention/procedure as follows:

1. Total number of interventions/procedures to be received by each participant as part of the research protocol.
2. If this intervention/procedure would be routinely given to participants as part of their care outside the research, how many of the total would be routine?
3. Average time taken per intervention/procedure (minutes, hours or days)
4. Details of who will conduct the intervention/procedure, and where it will take place.

Intervention or procedure	1	2	3	4
Approached regarding research.	1	0	15 minutes	Initial contact will be made via email in which potential participants will receive information packs and opt-in forms.
Confirmation of opt-in.	1	0	15 minutes	Those willing to participate will be required to return opt-in forms within two weeks via email.
Telephone contact	1	0	15 minutes	Potential participants who have not returned opt-in forms within specified time period will be contacted by telephone to determine whether they wish to participate in the study.
Confirmation of consent.	1	0	15 minutes	Verbal consent via telephone will be sought from each participant willing to take part in the study prior to telephone interview
Research interview	1	0	60-90 minutes	Participants to give detailed description of their experiences of implementing DBT programmes within their agency and of the factors that facilitated or hindered successful implementation.

A21. How long do you expect each participant to be in the study in total?

From initial contact to being sent a summary page of the findings, participants will be involved in the study at some level for a maximum of 15 months. However, active participant involvement in the research process will be approximately 3 hours.

A22. What are the potential risks and burdens for research participants and how will you minimise them?

For all studies, describe any potential adverse effects, pain, discomfort, distress, intrusion, inconvenience or changes to lifestyle. Only describe risks or burdens that could occur as a result of participation in the research. Say what steps would be taken to minimise risks and burdens as far as possible.

Participants will be healthcare professionals, therefore there is a chance that potential participants may feel obliged to participate in the study because of their job role. The participant information sheet will outline choice to participate and how choosing not to participate or withdrawing from the study will not affect their employment or links with the university.

Whilst it is not especially likely, in discussing challenges of implementing DBT participants may reflect on job stresses and difficulties, which they may find distressing. The researcher will be sensitive to the emotional state of the participant at all times during the study and be flexible in taking breaks or stopping the interview completely if

participant becomes distressed. The researcher is a trainee clinical psychologist and has the necessary skills to manage high levels of emotion or distress.

Participants may feel reluctant to give honest reports of their experiences, particularly if discussing attitudes or challenges faced. The participant information sheet will make it clear that the research will be anonymous and participation in the study will not affect participant's employment or links with the university. This will also be explained at the commencement of the interview.

The anonymity of the data could be compromised by the fact that Dr Michaela Swales, the research supervisor, is also the lead DBT trainer in the UK and may know some of the participants. The researcher will overcome this by removing any identifying information and making specific words more general in any passages before sharing information during the analysis stage.

The duration of time that participants will be expected to devote to the study (2-3 hours) may represent a significant burden for busy clinicians. This will be minimised by offering participants a preferred date and time for the telephone interview. Also, the participants involved in the previous study (Swales et al., 2012) reported that the opportunity to reflect on their implementation experience was helpful.

A23. Will interviews/ questionnaires or group discussions include topics that might be sensitive, embarrassing or upsetting, or is it possible that criminal or other disclosures requiring action could occur during the study?

◉ Yes ○ No

If Yes, please give details of procedures in place to deal with these issues:

Discussing their professional experience of possible challenges faced when implementing DBT at their agency could be a sensitive issue and emotive for some participants. The researcher will allow participants to take their time and either come back to or leave issues that cause distress.

If participants were to become distressed at any point during the interview, they would be given the option for interviewing to be stopped and provided with the opportunity to discuss their concerns, as well as being directed to appropriate support within their workplace, if required.

A24. What is the potential for benefit to research participants?

Participants may find the research beneficial in enabling them to reflect on their practice.

Participants are also contributing to the knowledge base of the factors that facilitate or hinder successful implementation of DBT treatment. Such information is beneficial to those who are in the stages of initial implementation or attempting to sustain existing DBT programmes. Furthermore, clinicians may be able to extrapolate insights gained from this study to the implementation of other evidence-based interventions they may employ in their practice.

A26. What are the potential risks for the researchers themselves? *(if any)*

Managing the emotional and concentration demands of conducting interviews. The researcher will be aware of these demands and limit the amount of interviews to be conducted in a given day. The researcher will also seek out appropriate supervision when required.

RECRUITMENT AND INFORMED CONSENT

In this section we ask you to describe the recruitment procedures for the study. Please give separate details for different study groups where appropriate.

A27-1. How will potential participants, records or samples be identified? Who will carry this out and what resources will be used? *For example, identification may involve a disease register, computerised search of social care or GP records, or review of medical records. Indicate whether this will be done by the direct care team or by researchers acting under arrangements with the responsible care organisation(s).*

Contact information of potential participants (professional only) will be accessed via the British Isles DBT Training database. This organisation is the sole licensed provider of DBT training within the United Kingdom and Ireland. All potential participants will be contacted by email or telephone and provided with an information pack including details of the study and opt-in forms. Those willing to participate will be required to return the opt-in forms via email to express their interest in participating in the study. Initial contact will be made via telephone when email details are unavailable. They will be informed of the study and forwarded an information pack should they declare interest.

A27-2. Will the identification of potential participants involve reviewing or screening the identifiable personal information of patients, service users or any other person?

○ Yes ◉ No

Please give details below:

A28. Will any participants be recruited by publicity through posters, leaflets, adverts or websites?

○ Yes ◉ No

A29. How and by whom will potential participants first be approached?

All potential participants will be contacted on their professional email or telephone contact details by the primary researcher and provided with an information pack including details of the study and opt-in forms. Those willing to participate will be required to return the opt-in forms via email to express their interest in participating in the study. HCPs interested in participating will be contacted via telephone provided with further information about the study, consent and procedures prior to commencement of interview. Once verbal consent has been given, the telephone interview will commence or be scheduled for a later date, should the participant prefer.

A30-1. Will you obtain informed consent from or on behalf of research participants?

◉ Yes ○ No

If you will be obtaining consent from adult participants, please give details of who will take consent and how it will be done, with details of any steps to provide information (a written information sheet, videos, or interactive material). Arrangements for adults unable to consent for themselves should be described separately in Part B Section 6, and for children in Part B Section 7.

If you plan to seek informed consent from vulnerable groups, say how you will ensure that consent is voluntary and fully informed.

Each participant will receive an information pack which will provide details of the study and opt-in forms. The information pack will outline the participant's right to withdraw at any time and provide contact details of the researcher, should participants require further information. Those people interested in participating will be required to return opt-in forms via email.

Informed consent will be obtained by the researcher, who is a trainee clinical psychologist and experienced in obtaining informed consent in their clinical work. Verbal consent will be sought prior to telephone interview. This information will be recorded on an encrypted USB device, and stored in accordance with Bangor University's data management policy.

If you are not obtaining consent, please explain why not.

Please enclose a copy of the information sheet(s) and consent form(s).

A30-2. Will you record informed consent (or advice from consultees) in writing?

○ Yes ◉ No

If No, how will it be recorded?

Verbal consent will be sought by telephone prior to the interview. A record of consent will be made alongside participant details, which will be placed on an encrypted USB device and stored in accordance with Bangor University data management policy.

A31. How long will you allow potential participants to decide whether or not to take part?

From first being given information packs, participants will be given two weeks to decide whether to participate in the study.

A33-1. What arrangements have been made for persons who might not adequately understand verbal explanations or written information given in English, or who have special communication needs? *(e.g. translation, use of interpreters)*

All information packs will be made available in English.

The nature of the research requires participants to give detailed explanations of their experiences which is then analysed. Therefore, anyone with a significant communication difficulty will not be able to participate.

A33-2. What arrangements will you make to comply with the principles of the Welsh Language Act in the provision of information to participants in Wales?

A significant number of potential participants are based outside of Wales. Furthermore, given the nature of their job role, potential participants should be fluent in English. Lastly, the researcher is not fluent in Welsh and therefore the research will be conducted in English.

A35. What steps would you take if a participant, who has given informed consent, loses capacity to consent during the study? *Tick one option only.*

- ○ The participant and all identifiable data or tissue collected would be withdrawn from the study. Data or tissue which is not identifiable to the research team may be retained.
- ◉ The participant would be withdrawn from the study. Identifiable data or tissue already collected with consent would be retained and used in the study. No further data or tissue would be collected or any other research procedures carried out on or in relation to the participant.
- ○ The participant would continue to be included in the study.
- ○ Not applicable – informed consent will not be sought from any participants in this research.
- ○ Not applicable – it is not practicable for the research team to monitor capacity and continued capacity will be assumed.

Further details:

If you plan to retain and make further use of identifiable data/tissue following loss of capacity, you should inform participants about this when seeking their consent initially.

CONFIDENTIALITY

In this section, personal data means any data relating to a participant who could potentially be identified. It includes pseudonymised data capable of being linked to a participant through a unique code number.

Storage and use of personal data during the study

A36. Will you be undertaking any of the following activities at any stage (including in the identification of potential participants)?*(Tick as appropriate)*

- ☐ Access to medical records by those outside the direct healthcare team
- ☐ Access to social care records by those outside the direct social care team
- ☑ Electronic transfer by magnetic or optical media, email or computer networks
- ☐ Sharing of personal data with other organisations
- ☐ Export of personal data outside the EEA

- ☐ Use of personal addresses, postcodes, faxes, emails or telephone numbers
- ☑ Publication of direct quotations from respondents
- ☐ Publication of data that might allow identification of individuals
- ☐ Use of audio/visual recording devices
- ☑ Storage of personal data on any of the following:
  - ☐ Manual files (includes paper or film)
  - ☐ NHS computers
  - ☐ Social Care Service computers
  - ☐ Home or other personal computers
  - ☐ University computers
  - ☑ Private company computers
  - ☐ Laptop computers

Further details:
Potential participants will be recruited from the DBT Training British Isles database. This database contains professional contact information and other information relevant to DBT training (e.g. start/finish dates). Potential participants have provided prior consent to DBT Training British Isles to be contacted about DBT training and to the use of information contained within the database for relevant purposes.

All electronic data will be encrypted before transfer. All returned opt-in forms will be saved to an encrypted USB device and stored in accordance with Bangor University data management policy.

Anonymised direct quotations may be used in the write-up of the study. This will be clearly outlined in the participant

A37. Please describe the physical security arrangements for storage of personal data during the study?

No paper information will be collected during this study. All information will be recorded electronically and stored on an encrypted USB device and laptop.

A38. How will you ensure the confidentiality of personal data? *Please provide a general statement of the policy and procedures for ensuring confidentiality, e.g. anonymisation or pseudonymisation of data.*

All names, places, and specific information relating to participants will be anonymised to avoid any identification. Care will also be taken when reporting job roles of participants to ensure there is no identifying.

Only the researcher will have knowledge of which participants consented to participation in the study.

A40. Who will have access to participants' personal data during the study? *Where access is by individuals outside the direct care team, please justify and say whether consent will be sought.*

The researcher will not need to access participants' personal address or contact details, as telephone interviews will be conducted during working hours.

Contact details (work email or telephone number) of those participants that indicate they would like to receive written feedback will be kept on an encrypted USB device and deleted after feedback has been sent.

Storage and use of data after the end of the study

A41. Where will the data generated by the study be analysed and by whom?

Data will be collected via telephone and typed by the researcher. Analyses of data will take place at Bangor University. All data files will be encrypted and stored in accordance with Bangor University's data management policy.

A42. Who will have control of and act as the custodian for the data generated by the study?

	Title	Forename/Initials	Surname
	Dr	Michaela	Swales
Post	Senior Lecturer and Chair, Board of Examiners		
Qualifications	DClinPsy		
Work Address	North Wales Clinical Psychology Programme		
	School of Psychology, Bangor University		
	43 College Road, Bangor, Gwynedd		
Post Code	LL57 2DG		
Work Email	m.swales@bangor.ac.uk		
Work Telephone	01248382205		
Fax			

A43. How long will personal data be stored or accessed after the study has ended?

- (●) Less than 3 months
- ( ) 3 – 6 months
- ( ) 6 – 12 months
- ( ) 12 months – 3 years
- ( ) Over 3 years

A44. For how long will you store research data generated by the study?

Years: 5
Months:

A45. Please give details of the long term arrangements for storage of research data after the study has ended.
Say where data will be stored, who will have access and the arrangements to ensure security.

Data will be stored on an encrypted USB device until the project has been completed.

In accordance with Bangor University policy and procedures, anonymised data will be stored for five years to be available for scrutiny following publication.

INCENTIVES AND PAYMENTS

A46. Will research participants receive any payments, reimbursement of expenses or any other benefits or incentives for taking part in this research?

○ Yes ◉ No

A47. Will individual researchers receive any personal payment over and above normal salary, or any other benefits or incentives, for taking part in this research?

○ Yes ◉ No

A48. Does the Chief Investigator or any other investigator/collaborator have any direct personal involvement (e.g. financial, share holding, personal relationship etc.) in the organisations sponsoring or funding the research that may give rise to a possible conflict of interest?

(●) Yes ( ) No

If yes, please give details including the amount of any monetary payment or the basis on which this will be calculated:
Dr Michaela Swales, Research Supervisor, is married to the Managing Director and major shareholder of the company that produces the British Isles DBT Training (BIDBT) events. The income that is generated from training for BIDBT is paid into Bangor University to fund administrative support for research and training (approx. 20k per annum). For these reasons, the principal researcher will be the only person to know which teams respond and what they say.

NOTIFICATION OF OTHER PROFESSIONALS

A49-1. Will you inform the participants' General Practitioners (and/or any other health or care professional responsible for their care) that they are taking part in the study?

( ) Yes (●) No

If Yes, please enclose a copy of the information sheet/letter for the GP/health professional with a version number and date.

PUBLICATION AND DISSEMINATION

A50-1. Will the research be registered on a public database?

( ) Yes (●) No

Please give details, or justify if not registering the research.

Registration of research studies is encouraged wherever possible.
You may be able to register your study through your NHS organisation or a register run by a medical research charity, or publish your protocol through an open access publisher. If you are aware of a suitable register or other method of publication, please give details. If not, you may indicate that no suitable register exists. Please ensure that you have entered registry reference number(s) in question A5-1.

A51. How do you intend to report and disseminate the results of the study? *Tick as appropriate:*

- [x] Peer reviewed scientific journals
- [ ] Internal report
- [x] Conference presentation
- [ ] Publication on website
- [ ] Other publication
- [ ] Submission to regulatory authorities
- [ ] Access to raw data and right to publish freely by all investigators in study or by Independent Steering Committee on behalf of all investigators
- [ ] No plans to report or disseminate the results

A52. If you will be using identifiable personal data, how will you ensure that anonymity will be maintained when publishing the results?

Any quotes or examples used in the write up of the study will be checked for anonymity, ensuring no personally identifiable information is disseminated. Particular care will be taken around reporting of participants' job roles to ensure this is not identifying.

A53. Will you inform participants of the results?

◉ Yes ○ No

Please give details of how you will inform participants or justify if not doing so.
Participants will be asked if they would like to receive feedback of the results and those that do so will receive a one-page summary.

5. Scientific and Statistical Review

A54-1. How has the scientific quality of the research been assessed? *Tick as appropriate:*

- ☐ Independent external review
- ☐ Review within a company
- ☐ Review within a multi−centre research group
- ☑ Review within the Chief Investigator's institution or host organisation
- ☑ Review within the research team
- ☑ Review by educational supervisor
- ☐ Other

Justify and describe the review process and outcome. If the review has been undertaken but not seen by the

For all studies except non-doctoral student research, please enclose a copy of any available scientific critique reports, together with any related correspondence.

For non-doctoral student research, please enclose a copy of the assessment from your educational supervisor/ institution.

A56. How have the statistical aspects of the research been reviewed? *Tick as appropriate:*

- ☐ Review by independent statistician commissioned by funder or sponsor
- ☐ Other review by independent statistician
- ☐ Review by company statistician
- ☑ Review by a statistician within the Chief Investigator's institution
- ☐ Review by a statistician within the research team or multi−centre group
- ☑ Review by educational supervisor
- ☐ Other review by individual with relevant statistical expertise
- ☐ No review necessary as only frequencies and associations will be assessed – details of statistical input not required

In all cases please give details below of the individual responsible for reviewing the statistical aspects. If advice has been provided in confidence, give details of the department and institution concerned.

	Title	Forename/Initials	Surname
	Dr	Michaela	Swales
Department	North Wales Clinical Psychology Programme		
Institution	Bangor University		
Work Address	School of Psychology		
	43 College Road		
	Bangor, Gwynedd		
Post Code	LL57 2DG		
Telephone	01248382205		

Mobile

E-mail m.swales@bangor.ac.uk

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A57. What is the primary outcome measure for the study?

The number of DBT programmes who have actively sustained since completing National Training.

A58. What are the secondary outcome measures? *(if any)*

The difference in number of programmes who have sustained between teams trained on-site or off-site.

A59. What is the sample size for the research? *How many participants/samples/data records do you plan to study in total? If there is more than one group, please give further details below.*

Total UK sample size: 359

Total international sample size (including UK): 359

Total in European Economic Area:

Further details:

A60. How was the sample size decided upon? *If a formal sample size calculation was used, indicate how this was done, giving sufficient information to justify and reproduce the calculation.*

All DBT teams who have undergone training with DBT Training British Isles (359) will be eligible for participation in the study.

A61-1. Will participants be allocated to groups at random?

○ Yes ◉ No

A62. Please describe the methods of analysis (statistical or other appropriate methods, e.g. for qualitative research) by which the data will be evaluated to meet the study objectives.

The study will use a mixed-methods approach. Descriptive data will collected for all participants and a survival curve calculated to determine programme survival rates.

A content analysis of data gathered during semi-structured interviews will be analysed for emerging themes and commonalities in participant experiences of implementing DBT.

6. MANAGEMENT OF THE RESEARCH

A63. Other key investigators/collaborators. *Please include all grant co−applicants, protocol co−authors and other key members of the Chief Investigator's team, including non-doctoral student researchers.*

	Title	Forename/Initials	Surname
	Dr	Michaela	Swales
Post	Senior Lecturer & Chair, Board of Examiners		
Qualifications	Doctorate in Clinical Psychology		
Employer	Bangor University		
Work Address	North Wales Clinical Psychology Programme		

	School of Psychology, Bangor University
	43 College Road, Bangor, Gwynedd
Post Code	LL57 2DG
Telephone	01248382552
Fax	
Mobile	
Work Email	m.swales@bangor.ac.uk

A64. Details of research sponsor(s)

A65. Has external funding for the research been secured?

- ☐ Funding secured from one or more funders
- ☐ External funding application to one or more funders in progress
- ☑ No application for external funding will be made

What type of research project is this?

- ○ Standalone project
- ○ Project that is part of a programme grant
- ○ Project that is part of a Centre grant
- ◉ Project that is part of a fellowship/ personal award/ research training award
- ○ Other

Other – please state:

A66. Has responsibility for any specific research activities or procedures been delegated to a subcontractor (other than a co-sponsor listed in A64-1) ? *Please give details of subcontractors if applicable.*

○ Yes ◉ No

A67. Has this or a similar application been previously rejected by a Research Ethics Committee in the UK or another country?

○ Yes ◉ No

Please provide a copy of the unfavourable opinion letter(s). You should explain in your answer to question A6-2 how the reasons for the unfavourable opinion have been addressed in this application.

A68-1. Give details of the lead NHS R&D contact for this research:

Title	Forename/Initials	Surname
Dr	Rossela	Roberts

Organisation	Betsi Cadwaladr University Health Board
Address	Clinical Governance Officer
	Ysbyty Gwynedd
	Bangor
Post Code	LL57 2PW
Work Email	rossela.roberts@wales.nhs.uk

Telephone 01248384877
Fax
Mobile

Details can be obtained from the NHS R&D Forum website: http://www.rdforum.nhs.uk

A69-1. How long do you expect the study to last in the UK?

Planned start date: 29/06/2015
Planned end date: 30/09/2016
Total duration:
Years: 1 Months: 3 Days: 2

A71-1. Is this study?

- (•) Single centre
- ( ) Multicentre

A71-2. Where will the research take place? *(Tick as appropriate)*

- [ ] England
- [ ] Scotland
- [x] Wales
- [ ] Northern Ireland
- [ ] Other countries in European Economic Area

Total UK sites in study

Does this trial involve countries outside the EU?

( ) Y (•) N

A72. Which organisations in the UK will host the research? *Please indicate the type of organisation by ticking the box and give approximate numbers if known:*

- [ ] NHS organisations in England
- [x] NHS organisations in Wales
- [ ] NHS organisations in Scotland
- [ ] HSC organisations in Northern Ireland
- [ ] GP practices in England
- [ ] GP practices in Wales
- [ ] GP practices in Scotland
- [ ] GP practices in Northern Ireland
- [ ] Joint health and social care agencies (eg community mental health teams)
- [ ] Local authorities
- [ ] Phase 1 trial units
- [ ] Prison establishments
- [ ] Probation areas
- [ ] Independent (private or voluntary sector) organisations

☐ Other (give details)

Total UK sites in study: 0

A73-1. Will potential participants be identified through any organisations other than the research sites listed above?

○ Yes ◉ No

A74. What arrangements are in place for monitoring and auditing the conduct of the research?

The North Wales Clinical Psychology Programme and the primary researcher will take responsibility for the conduct of the research. Research governance frameworks will be adhered to and monitored, if necessary, by the Betsi Cadwaladr University Health Board NHS R&D department.

A76. Insurance/ indemnity to meet potential legal liabilities

Note: in this question to NHS indemnity schemes include equivalent schemes provided by Health and Social Care (HSC) in Northern Ireland

A76-1. What arrangements will be made for insurance and/or indemnity to meet the potential legal liability of the sponsor(s) for harm to participants arising from the management of the research? *Please tick box(es) as applicable.*

Note: Where a NHS organisation has agreed to act as sponsor or co-sponsor, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For all other sponsors, please describe the arrangements and provide evidence.

☐ NHS indemnity scheme will apply (NHS sponsors only)

☑ Other insurance or indemnity arrangements will apply (give details below)

Bangor University will meet the potential legal liability of the sponsor for harm to participants arising from the management of the research.

Please enclose a copy of relevant documents.

A76-2. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of the sponsor(s) or employer(s) for harm to participants arising from the design of the research? *Please tick box(es) as applicable.*

Note: Where researchers with substantive NHS employment contracts have designed the research, indemnity is provided through NHS schemes. Indicate if this applies (there is no need to provide documentary evidence). For other protocol authors (e.g. company employees, university members), please describe the arrangements and provide evidence.

☐ NHS indemnity scheme will apply (protocol authors with NHS contracts only)

☑ Other insurance or indemnity arrangements will apply (give details below)

Bangor University will meet the potential legal liability of the sponsor for harm to participants arising from the design of the research.

Please enclose a copy of relevant documents.

A76-3. What arrangements will be made for insurance and/ or indemnity to meet the potential legal liability of investigators/collaborators arising from harm to participants in the conduct of the research?

Note: Where the participants are NHS patients, indemnity is provided through the NHS schemes or through professional indemnity. Indicate if this applies to the whole study (there is no need to provide documentary evidence). Where non-NHS sites are to be included in the research, including private practices, please describe the arrangements which will be made at

these sites and provide evidence.

☐ NHS indemnity scheme or professional indemnity will apply (participants recruited at NHS sites only)

☑ Research includes non-NHS sites (give details of insurance/ indemnity arrangements for these sites below)

Bangor University will meet the potential legal liability of the sponsor for harm to participants arising from the conduct of the research.

Please enclose a copy of relevant documents.

A78. Could the research lead to the development of a new product/process or the generation of intellectual property?

○ Yes ◉ No ○ Not sure

PART C: Overview of research sites

Please enter details of the host organisations (Local Authority, NHS or other) in the UK that will be responsible for the research sites. *For NHS sites, the host organisation is the Trust or Health Board. Where the research site is a primary care site, e.g. GP practice, please insert the host organisation (PCT or Health Board) in the Institution row and insert the research site (e.g. GP practice) in the Department row.*

Research site		Investigator/ Collaborator/ Contact	
Institution name	Bangor University	Title	Dr
Department name	North Wales Clinical Psychology Programme	First name/ Initials	Michaela
Street address	43 College Road	Surname	Swales
Town/city	Bangor		
Post Code	LL57 2DG		

Institution name		Title	
Department name		First name/ Initials	
Street address		Surname	
Town/city			
Post Code			

D1. Declaration by Chief Investigator

1. The information in this form is accurate to the best of my knowledge and belief and I take full responsibility for it.

2. I undertake to abide by the ethical principles underlying the Declaration of Helsinki and good practice guidelines on the proper conduct of research.

3. If the research is approved I undertake to adhere to the study protocol, the terms of the full application as approved and any conditions set out by review bodies in giving approval.

4. I undertake to notify review bodies of substantial amendments to the protocol or the terms of the approved application, and to seek a favourable opinion from the main REC before implementing the amendment.

5. I undertake to submit annual progress reports setting out the progress of the research, as required by review bodies.

6. I am aware of my responsibility to be up to date and comply with the requirements of the law and relevant guidelines relating to security and confidentiality of patient or other personal data, including the need to register when necessary with the appropriate Data Protection Officer. I understand that I am not permitted to disclose identifiable data to third parties unless the disclosure has the consent of the data subject or, in the case of patient data in England and Wales, the disclosure is covered by the terms of an approval under Section 251 of the NHS Act 2006.

7. I understand that research records/data may be subject to inspection by review bodies for audit purposes if required.

8. I understand that any personal data in this application will be held by review bodies and their operational managers and that this will be managed according to the principles established in the Data Protection Act 1998.

9. I understand that the information contained in this application, any supporting documentation and all correspondence with review bodies or their operational managers relating to the application:

    - Will be held by the REC (where applicable) until at least 3 years after the end of the study; and by NHS R&D offices (where the research requires NHS management permission) in accordance with the NHS Code of Practice on Records Management.
    - May be disclosed to the operational managers of review bodies, or the appointing authority for the REC (where applicable), in order to check that the application has been processed correctly or to investigate any complaint.
    - May be seen by auditors appointed to undertake accreditation of RECs (where applicable).
    - Will be subject to the provisions of the Freedom of Information Acts and may be disclosed in response to requests made under the Acts except where statutory exemptions apply.
    - May be sent by email to REC members.

10. I understand that information relating to this research, including the contact details on this application, may be held on national research information systems, and that this will be managed according to the principles established in the Data Protection Act 1998.

11. Where the research is reviewed by a REC within the UK Health Departments Research Ethics Service, I understand that the summary of this study will be published on the website of the National Research Ethics Service (NRES), together with the contact point for enquiries named below. Publication will take place no earlier than 3 months after issue of the ethics committee's final opinion or the withdrawal of the application.

(•)
( )

Contact point for publication *(Not applicable for R&D Forms)*

NRES would like to include a contact point with the published summary of the study for those wishing to seek further information. We would be grateful if you would indicate one of the contact points below.

Chief Investigator

Sponsor

Study co-ordinator

Student

Other – please give details

None

Access to application for training purposes *(Not applicable for R&D Forms)*

Optional – please tick as appropriate:

I would be content for members of other RECs to have access to the information in the application in confidence for training purposes. All personal identifiers and references to sponsors, funders and research units would be removed.

Signature: .....

Print Name:

Date: *(dd/mm/yy)*

D2. Declaration by the sponsor's representative

If there is more than one sponsor, this declaration should be signed on behalf of the co−sponsors by a representative of the lead sponsor named at A64-1.

I confirm that:

1. This research proposal has been discussed with the Chief Investigator and agreement in principle to sponsor the research is in place.

2. An appropriate process of scientific critique has demonstrated that this research proposal is worthwhile and of high scientific quality.

3. Any necessary indemnity or insurance arrangements, as described in question A76, will be in place before this research starts. Insurance or indemnity policies will be renewed for the duration of the study where necessary.

4. Arrangements will be in place before the study starts for the research team to access resources and support to deliver the research as proposed.

5. Arrangements to allocate responsibilities for the management, monitoring and reporting of the research will be in place before the research starts.

6. The duties of sponsors set out in the Research Governance Framework for Health and Social Care will be undertaken in relation to this research.

   Please note: *The declarations below do not form part of the application for approval above. They will not be considered by the Research Ethics Committee.*

7. Where the research is reviewed by a REC within the UK Health Departments Research Ethics Service, I understand that the summary of this study will be published on the website of the National Research Ethics Service (NRES), together with the contact point for enquiries named in this application. Publication will take place no earlier than 3 months after issue of the ethics committee's final opinion or the withdrawal of the application.

8. Specifically, for submissions to the Research Ethics Committees (RECs) I declare that any and all clinical trials approved by the HRA since 30th September 2013 (as defined on IRAS categories as clinical trials of medicines, devices, combination of medicines and devices or other clinical trials) have been registered on a publically accessible register in compliance with the HRA registration requirements for the UK, or that any deferral granted by the HRA still applies.

Signature:

.....

Print Name:

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D3. Declaration for student projects by academic supervisor(s)

1. I have read and approved both the research proposal and this application. I am satisfied that the scientific content of the research is satisfactory for an educational qualification at this level.

2. I undertake to fulfil the responsibilities of the supervisor for this study as set out in the Research Governance
Framework for Health and Social Care.

3. I take responsibility for ensuring that this study is conducted in accordance with the ethical principles underlying the Declaration of Helsinki and good practice guidelines on the proper conduct of research, in conjunction with clinical supervisors as appropriate.

4. I take responsibility for ensuring that the applicant is up to date and complies with the requirements of the law and relevant guidelines relating to security and confidentiality of patient and other personal data, in conjunction with clinical supervisors as appropriate.

Academic supervisor 1

Signature:

.....

Print Name:

Participant Information Sheet

Part I: Information Sheet

This information sheet is for clinicians who have been trained in Dialectical Behaviour Therapy (DBT) by British Isles DBT Training and who are invited to participate in research, titled "Implementing dialectical behaviour therapy in routine UK healthcare settings".

The principal investigator is Joanne McMaster, Trainee Clinical Psychologist, North Wales Clinical Psychology Programme (NWCPP). The research project will be undertaken as part of my post-doctoral qualification and seeks to examine the factors involved in successfully implementing and sustaining DBT programmes in routine UK healthcare settings. The research is sponsored by Bangor University and will be supervised by Dr Michaela Swales, Senior Lecturer, North Wales Clinical Psychology Programme, Bangor University.

The information pack has two parts: an Information Sheet (to share information about the study with you) and an Opt-In Form (to be returned to the principal investigator, should you choose to participate). I am inviting you to be a part of this study. You do not have to decide today whether or not you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research. If there is any information on this form that you do not understand, please feel free to contact me at the details on the bottom of this form, should you need me to explain anything further.

Purpose of the Research

The British Isles DBT Training has trained in excess of 300 teams within the UK. Following training, teams of DBT trained clinicians are faced with the task of implementing DBT programmes within their service setting. The task of implementing a new practice is a complex one with some DBT teams experiencing early programme failure, whilst others have been able to sustain long-term. We want to learn what factors aid or hinder successful

implementation of DBT programmes within routine UK healthcare settings. By increasing our understanding of the factors involved in implementing and sustaining DBT programmes, we may be able to find out in which circumstances programme success is more likely and identify solutions to problems that are likely to result in programme failure.

Type of Research Intervention

This research will involve your participation in a telephone survey that will take approximately one hour to complete. We are keen to understand the experience of DBT teams that are currently active as well as those which are no longer active, in order to explore how facilitative and hindering factors relate to survivability or programme death

Participant Selection

You have been invited to participate in this research because we feel that your experience of implementing a DBT programme in your service setting can contribute much to our understanding of the factors that aid programme success or failure.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. The choice you make will have no bearing on your job or any links you may have with Bangor University. You may change your mind and stop participating at any point in the research (even if you previously agreed to participate). If you decide that you would no longer like to participate after the telephone survey has already taken place, any information that you provided will not be used in the study.

Procedures

If you would like to take part in the study, please return the attached Opt-In Form to the email address below by [insert date]. If I have not received any correspondence from you by this

date, I will follow-up with a telephone call to determine whether you would like to take part. If you accept, you will be asked to participate in a telephone interview with myself and verbal consent to participate will be taken. At a date and time of your preference, I will telephone you and ask you questions about your experience of implementing DBT within your service. The information recorded is confidential. Your name will not appear on any forms, only a number will identify you and no one else except the researcher will have access to the information documented during your interview.

The research will take place over a period of 13 months in total. However, the telephone interview will take approximately one hour to complete.

Risks

I am asking you to share with me your experiences of implementing DBT within your service setting. There is a risk that you may share some personal or confidential information by chance, or that you may feel uncomfortable talking about some of the topics. However, I do not wish for this to happen. Therefore, you do not have to answer any question or take part in the interview if you feel the question(s) are too personal or if talking about them makes you feel uncomfortable.

Benefits

Whilst there is no direct benefit to you, participation is likely to help increase our understanding of the factors that aid or hinder successful implementation of DBT programmes, as well as those factors which help to sustain programmes. In doing so, it may provide you with helpful information on how to implement or sustain DBT in your setting, depending on your stage of implementation.

Confidentiality

We are seeking information regarding the experience of the DBT team. Information about you or anyone else within your team will not be shared with anyone outside of the research team. If your team is no longer active, this information will be updated on the DBT British Isles database. All other information collected from this research will be kept private and anonymised, and will be stored on an encrypted USB device and locked away.

Sharing the Results

Each participant will be asked if they would like to receive a summary of the results. If you choose to receive this, the knowledge that we get from the research will be shared with you before it is made widely available to the public. Each participant who chooses to receive this information will get a one page summary of the research findings. Following this, the results will be published so that other interested people may learn from the research.

Right to Refuse or Withdraw

You do not have to take part in this research if you do not wish to do so, and choosing to participate will not affect your job or any links you have with Bangor University. You may stop participating in the research at any time that you wish without your job being affected. I will give you an opportunity at the end of the interview to review your remarks and you can ask to modify or remove any portions of those, if you do not agree with my notes or if I did not understand you correctly.

Who to Contact

If you have any questions, you can ask them at any point in the research. The researcher contact details are:

Joanne McMaster
Trainee Clinical Psychologist
North Wales Clinical Psychology Programme
School of Psychology
Bangor University
43 College Road
Bangor
LL57 2DG
Telephone: 01248 382205 email: joanne.mcmaster@wales.nhs.uk

This proposal has been reviewed and approved by BCUHB Research and Development Office. If you wish to find out more please contact:

Dr Rossela Roberts
Clinical Governance Officer
Betsi Cadwaladr University Health Board
Ysbyty Gwynedd
Bangor
LL57 2PW
Telephone: 01248384877 Email: rossela.roberts@wales.nhs.uk

Participant Opt-in Form

Reply slip to opt-in

Implementing Dialectical Behaviour Therapy in Routine UK Healthcare Settings

If you decide to take part, please keep the information sheet and return this reply form via email and one of the researchers will contact you to provide you with further information on procedures and consent, and to arrange a suitable time to conduct the telephone interview.

Contact Details

Name:

Email:

Telephone number:

Best time to telephone

Please return completed form to psp2da@bangor.ac.uk.

Telephone Survey Sheet

DBT Implementation Telephone Survey

Introduction

Confidentiality

Information about you will not be shared with anyone outside the research team. Similarly, anything that you tell me will not be shared with anyone outside of the research team. However, the usual limits of confidentiality will apply should you tell me something that puts you or another person at risk.

Right to Withdraw

You have the right to withdraw from this interview at any time. If you feel uncomfortable answering a question, you can ask to move on to the next question. You will also be given the opportunity at the end of the interview to review and/or modify your responses, if you wish to do so.

If you don't have any questions, let's begin. I am interested in your experience of implementing DBT within your service and the questions have been designed to elicit your thoughts on the implementation process.

The interview is organised into different sections and I will tell you when we move to another section. I will read the questions exactly how they are written so that everyone is asked the same questions. There are three types of questions: some are simple factual questions, others I will ask you to answer in your own words, and the last type of question are answered on a Likert-type rating scale. Feel free to ask me any questions at any time, if you are unsure of what is wanted. The interview will take about one hour to complete.

Place 'X' in box to indicate that participant has given verbal consent to participate in the study

Section A

1. Are you still offering DBT? Yes_____ No_____
   If no, go to section B

2. How long have you been offering DBT within your service?
   Years_____ Months_____

3. How many DBT clinicians are there in your service? _____

4. What is the professional categorisation of the DBT clinicians at your service?

	#
Clinical Psychologist	_____
Social Worker	_____
Nurse	_____
Psychological Therapist	_____
Counsellor	_____
Other _____	_____

Section B

1. When did you stop offering DBT?

   Month_____ Year_____

2. Please tell me 3 things, in or out of your control that, you think worked against sustaining DBT in your service. That is, please tell me why you think your service no longer offers DBT.

1)
2)
3)

Section C

The following are factors that may affect implementation of evidence-based practices based on Damschroder et. al's (2009) Consolidated Framework for Implementation Research (CFIR). For each one, please choose on a scale that best describes its impact on your service's ability to implement DBT. The scale ranges from -2 to +2. A negative number indicates a factor that worked against successfully implementing DBT. A positive number indicates a factor that worked towards implementing DBT. The midpoint of the scale (0) indicates that the factor had no effect or that the negative and positive effects cancelled each other out.

Intervention Characteristics

1. Source of decision to implement DBT (e.g. external or internal)

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

2. Quality of the evidence base for DBT

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

3. Perception of the advantages of implementing DBT in your service

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

4. Extent to which DBT can be tailored to meet the needs of your service

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

5. Trialability (e.g. the ease in which DBT could be piloted in your service before implementation)

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

6. Perceived difficulty of implementing DBT within your service

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

7. DBT training

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

8. Financing of DBT

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

Would you like to expand further on any of the response you have provided in this section?

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

10. Acceptability of DBT by clients

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

11. Accessibility of DBT for clients

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

12. Consultation with external agencies

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

13. Supervision

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

14. Competitive pressure with other services/agencies

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

15. Government or local health board policy

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

Would you like to expand further on any of the response you have provided in this section?

Inner Setting

16. Social architecture of service (e.g. age, maturity, and size)

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

17. Practitioner turnover

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

18. Leadership turnover

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

19. Division of labour among practitioners

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

20. Decision-making autonomy within your service

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

21. Availability of DBT networks

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

22. Feedback or other communication about DBT outcomes across the organisation

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

23. Compatibility of DBT with organisational values and goals

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

24. The absorptive capacity for change within your service

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

25. Shared receptivity of involved individuals to DBT

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

26. Leadership engagement with DBT

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

27. Availability of resources

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

28. Shared perception of the importance of implementing DBT in your service

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

29. Learning climate within your organisation

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

Characteristics of Individuals

30. Practitioner attitudes towards DBT

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

31. Skills of DBT practitioners

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

32. Practitioner readiness for DBT

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

33. The level of practitioner commitment required

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

Would you like to expand further on any of the response you have provided in this section?

Implementation Process

34. Level of planning required for implementation tasks

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

35. Selection process of DBT practitioners

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

36. Appointment of DBT leader(s)

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

37. Existence of DBT champion(s)

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

38. Influence of external change agents

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

39. Execution of implementation plan

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

40. Evaluation and feedback of implementation efforts

-2 very negative -1 negative 0 neutral or no effect 1 positive 2 very positive

Would you like to expand further on any of the response you have provided in this section?

Summary

What else would you like to add that would help me to understand the sustaining or not of DBT in your service?

Section D.1 – Sustainability - to be completed by active programmes.
(Adapted from Swain et al's., (2010) EBP Sustaining Telephone Survey)

Outcomes

1. Are you measuring client outcomes related to DBT?

   Yes_____ No_____

2. If yes, how are the outcome data used?

3. Who sees the data?

4. How often?

5. How long after the time period covered?

Penetration

6. Are you serving: a) considerably fewer, b) about the same, or c) a lot more... clients with this practice compared to when DBT training was completed.

Training/Consultation

7. Do you do:
   New hire training? Yes_____ No_____
   Booster training? Yes_____ No_____

8. Have you sought advice concerning DBT from outside consultants within the last two years?

   Yes _____ No _____

9. How much consultation have you had in the last two years?

Fidelity

10. Do you offer all aspects of DBT (please tick all that apply)?

    One-to-one _____
    Skills Training _____
    Consultation Group _____
    Telephone Support _____

11. Have you modified the DBT model to suit your service needs? That is, have you made changes to DBT in order to adapt to such things as socio-cultural milieu, local regulations or policies, client characteristics, practitioner skills or experience, or recent research findings?

If yes, please describe briefly the local adaptations to the DBT model.

12. To what extent have you adapted DBT? Please rate the extent of the adaptations on a scale of 1 to 5, with 1 indicating a little and 5 indicating considerable adaptations.

A little 1 2 3 4 5 **Considerable**

13. At what stage in the implementation process did you make the adaptations?

    a) During initial training

    b) Once training was completed and one or more attempts of adhering to the DBT model had occurred

Would you like to review or modify any of the responses you have provided in this interview?

Do you have any questions?

Would you like to be provided with a summary of the results from the research?

Section D.2 – Sustainability (to be completed by inactive programmes)

Outcomes

14. Did you measure client outcomes related to DBT?

    Yes_____ No_____

15. If yes, how were the outcome data used?

16. Who saw the data?

17. How often?

18. How long after the time period covered?

Penetration

19. Were you serving: a) considerably fewer, b) about the same, or c) a lot more... clients with this practice compared to when DBT training was initiated.

Training/Consultation

20. Did you do:
    New hire training? Yes_____ No_____
    Booster training? Yes_____ No_____

21. Did you seek advice concerning DBT from outside consultants whilst your DBT programme was active?

    Yes _____ No _____

22. Have much consultation did you have when your programme was active?

Fidelity

23. Did you offer all aspects of DBT (please tick all that apply)?

    One-to-one _____
    Skills Training _____
    Consultation Group _____
    Telephone Support _____

24. Did you modify the DBT model to suit your service needs? That is, did you make changes to DBT in order to adapt to such things as socio-cultural milieu, local regulations or policies, client characteristics, practitioner skills or experience, or new research findings?

If yes, please describe briefly the local adaptations you made to the DBT model.

25. To what extent did you adapt DBT? Please rate the extent of the adaptations on a scale of 1 to 5, with 1 indicating a little and 5 indicating considerable adaptations.

    A little 1 2 3 4 5 **Considerable**

26. At what stage in the implementation process did you make the adaptations?

    c) During initial training
    d) Once training was completed and one or more attempts of adhering to the DBT model had occurred

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Would you like to review or modify any of the responses you have provided in this interview?

Do you have any questions?

Would you like to be provided with a summary of the results from the research?

School of Psychology Ethics Committee Requests for Additional Information

Subject: Ethics application - 15499
Date: Wednesday, 12 August 2015 at 12:16:56 British Summer Time
From: Becky Ryan
To: Joanne Clair McMaster
CC: Michaela Swales, Everil McQuarrie

Dear Joanne,

Please see below, comments from the reviewer. Please could you make the required amendments to your application:

Scientific Quality:	All fine; important area. I wondered whether it might be useful context to know the number of clients that have been through each of the 300+ DBT programmes. And also what the perspective of service managers and commissioners?
Care and protection of research participants :	All fine.
Adequacy and completeness of participant information:	The PIS very long; it could benefit from a good edit. It should probably explain why the individuals have been chosen for the study. And the PIS and consent form should be separate, so participants could retain the former.
Recruitment/Consent:	Participants will be recruited through the DBT Training British Isles database. Evidently, the professionals have given consent to be contacted about 'DBT training and information relevant to its use'. It isn't quite clear whether this consent extends to being approached for research specifically. If it doesn't, the study will have to be disseminated by the staff who run the database. Also, it might be as well to warn potential participants that the researchers will be following up with a phone call even if they do not return the opt-in slip.
Data Protection & participant Confidentiality:	It doesn't look like the protocol includes taping the interviews. If it does, then this will need to be stated in the PIS (with some information about what will happen to the tape) and an item for consent to be taped included in the consent form. Section A43 sates that the personal data will be stored for less than 3 months but A44 indicates 5 years. Wouldn't it all be kept for 5yrs?
Governance issues and risk assessment:	This shouldn't need to be approved by both the Bangor Ethics committee and the NHS; the latter should suffice.
Other issues:	None.
Approval Status:	Approve with minor revisions subject to verification by administrator

Kind regards,

Becky

Rebecca Ryan
Administrative Assistant

Coleg Gwyddorau Iechyd a Ymddygiad

Response to Request for Additional Information

Becky Ryan

From: Joanne Clair McMaster
Sent: 13 August 2015 15:32
To: Ethics Shared Mailbox
Subject: Re: Ethics application - 15499

Categories: Requires action

Hi Becky,

Further to our telephone call earlier, I have addressed the relevant points below:

Scientific Quality: Whilst the number of clients treated may be an interesting aspect to explore, some DBT teams may not have collected this information and is not pertinent to how well a programme is initially implemented. Also, the perspective of service managers and commissioners would also be an interesting area to consider but would be beyond the scope of this research, given the already large number of potential participants. It could be a future area to explore.

Adequacy and completeness of participant information: PIS has been shortened and amended to explain why participants have been selected to take part in the study (see under 'Participant Selection' on Information Sheet). The Opt-In form is separate from the Information Sheet (See supporting documents). There is no Consent Form, as verbal consent will be taken at the beginning of telephone survey. Information Sheet has been amended to reflect this (see under 'Procedures' on Information Sheet).

Recruitment/Consent: The information pack will be sent via mailshot from the DBT database. The 'Procedures' section in the Information Sheet has been amended to let participants know that there will be a follow-up phone call, if Opt-In form has not been returned.

Data Protection & participant confidentiality: 'Private company computers' has been selected on IRAS form due to participant information being accessed from a private company database.

Telephone interviews will not be audiotaped. Section A43 relates to personally identifiable data of participants. This will be collected and retained for those individuals who wish to receive information about the results of the study. Personally identifiable data will be stored for up to months only. Section A44 relates to the storage of research data, which will be kept for 5 years, in accordance with Bangor University policies and procedures.

Governance issues and risk assessment: Section A74 on IRAS form has been amended accordingly.

I have attached the amended documents to my online application. If at all possible, I would be grateful if the review of my amendments could be expedited, so I can submit to IRAS asap.

Many thanks,

Joanne McMaster

Sent from Windows Mail

School of Psychology Ethical Approval

Subject: Ethical approval granted for 2015-15499 Implementing Dialectical Behaviour Therapy in UK Healthcare Settings
Date: Friday, 21 August 2015 at 12:20:23 British Summer Time
From: ethics@bangor.ac.uk
To: Joanne Clair McMaster

Dear Joanne,

2015-15499 Implementing Dialectical Behaviour Therapy in UK Healthcare Settings

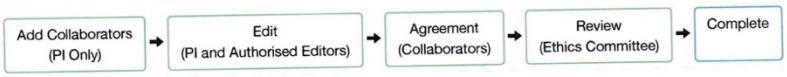
Your research proposal number 2015-15499
has been reviewed by the Psychology Ethics and Research Committee
and the committee are now able to confirm ethical and governance approval for the above research on the basis described in the application form, protocol and supporting documentation. This approval lasts for a maximum of three years from this date.

Ethical approval is granted for the study as it was explicitly described in the application

If you wish to make any non-trivial modifications to the research project, please submit an amendment form to the committee, and copies of any of the original documents reviewed which have been altered as a result of the amendment. Please also inform the committee immediately if participants experience any unanticipated harm as a result of taking part in your research, or if any adverse reactions are reported in subsequent literature using the same technique elsewhere.

Request for Amendments to School of Psychology Ethics Proposal

This application is currently not editable the diagram below highlights the current state of the application and who is currently able to make edits



Download as PDF (/ethics/printable/15499/13485/)
Download attachments.zip (/ethics/attachmentzip/15499/1348

Application number:	2015-15499-A13485
Project Title:	Implementing Dialectical Behaviour Therapy in UK Healthcare Settings
Amendment requested by:	King, Joanne
Principal Investigator:	King, Joanne
Study Start Date:	29 Jun 2015
Study End Date:	30 Sep 2016
Other Researchers:	Swales, Michaela - Agreed ✉ (mailto: m.swales@bangor.ac.uk)
Nature of Amendment:	Following consultation with NHS R&D office, data collection by telephone survey would require ethical approval from all UK health boards due to study being UK wide. Data collection method to be amended to an online survey, which will not require NHS ethical approval. Telephone survey document has now been changed to an online version and new participant information sheet created (see supporting documents). To encourage a higher response rate, an incentive to participate has been included which involves entering participants into a prize draw (details included on information sheet). A telephone survey would have taken clinicians out of their clinical time and required UK-wide ethical approval. By changing to an online survey, participants can choose to complete the questionnaire at a time most suitable to them, including outside of working hours, and removes the requirement for NHS approval as researcher no longer responsible for when they choose to complete the questionnaire.
Department	Psychology

LAST MODIFIED: 21 Sep 2015 11:51a.m. by psp2da

Review

Apologies for the delay. No objections. Not quite clear why shifting from a telephone survey to an online survey in itself means that NHS approval isn't required. Happy to approve immediately if PIs can clarify.

Approval Status:Revision necessary before final approval

Pre-screen Questions | Part 1: Ethical Considerations | Part 2: A | Part 2: B | Part 3: Risk Assessment | Declaration | Part 4: Research Insurance | Amendment form | Supporting Docs

Type of Project:	D.Clin.Psy
What is the broad area of research:	Clinical/Health
Funding body:	Internally Funded
Type of application (check all that apply):	Project requiring scrutiny from an outside body whic its own ethical forms and review procedures
Proposed methodology (check all that apply):	Questionnaires and Interviews
Do you plan to include any of the following groups in your study?:	
Does your project require use of any of the following facilities and, if so, has the protocol been reviewed by the appropriate expert/safety panel? If yes please complete Part 2:B:	
If your research requires any of the following facilities MRI, TMS/ tCS, Neurology Panel, has the protocol been reviewed by the appropriate expert/safety panel? :	Not applicable (the research does not require specia safety panel approval)
Connection to Psychology, (i.e. why Psychology should sponsor the question):	Investigator is a student in Psychology (including th North Wales Clinical Psychology Programme)
Does the research involve NHS patients? (NB: If you are conducting research that requires NHS ethics approval make sure to consult the Psychology Guidelines as you may not need to complete all sections of the Psychology online application):	No
Has this proposal been reviewed by another Bangor University Ethics committee?:	No
NHS checklist. Does your study involve any of the following?:	Use of NHS Staff or resources e.g. recruitment throu

School of Psychology Amended Ethics Application

Application for Ethical Approval

Project Title: Implementing Dialectical Behaviour Therapy in UK Healthcare Settings **Principal investigator:** King, Joanne**Other researchers:** Swales,Michaela

Pre-screen Questions

Type of Project

D.Clin.Psy

What is the broad area of research

Clinical/Health

Funding body

Internally Funded

Type of application (check all that apply)

Project requiring scrutiny from an outside body which has its own ethical forms and review procedures

Proposed methodology (check all that apply)

Questionnaires and Interviews

Do you plan to include any of the following groups in your study?

Does your project require use of any of the following facilities and, if so, has the protocol been reviewed by the appropriate expert/safety panel? If yes please complete Part 2:B

If your research requires any of the following facilities MRI, TMS/ tCS, Neurology Panel, has the protocol been reviewed by the appropriate expert/safety panel?Not applicable (the research does not require special safety panel approval)

Connection to Psychology, (i.e. why Psychology should sponsor the question)

Investigator is a student in Psychology (including the North Wales Clinical Psychology Programme)

Does the research involve NHS patients? (NB: If you are conducting research

that requires NHS ethics approval make sure to consult the Psychology Guidelines as you may not need to complete all sections of the Psychology online application)No

Has this proposal been reviewed by another Bangor University Ethics committee?

No

NHS checklist. Does your study involve any of the following?

Use of NHS Staff or resources e.g. recruitment through the NHS, access to Medical records, use of premises etc.

Part 1: Ethical Considerations

Will you describe the main experimental procedures to participants in advance, so that they are informed about what to expect?Yes

Will you tell participants that their participation is voluntary?

Yes

Will you obtain written consent for participation?

Yes

If the research is observational, will you ask participants for their consent to being observed?N/A

Will you tell participants that they may withdraw from the research at any time and for any reason?Yes

With questionnaires, will you give participants the option of omitting questions they do not want to answer?Yes

Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?Yes

Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study)?Yes

Will your project involve deliberately misleading participants in any way?

No

Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort? If *Yes* , give details and state what you will tell them to do should they experience any problems (e.g., who they can contact for help)No

Is there any realistic risk of any participants experiencing discomfort or risk to health, subsequent illness or injury that might require medical or psychological treatment as a result of the procedures?No

Does your project involve work with animals? If *Yes* please complete Part 2: B

No

Does your project involve payment to participants that differs from the normal rates? Is there significant concern that the level of payment you offer for this study will unduly influence participants to agree to procedures they may otherwise find unacceptable? If *Yes* please complete Part 2: B and explain in point 5 of the full protocol

No

If your study involves children under 18 years of age have you made adequate provision for child protection issues in your protocol?N/A

If your study involves people with learning difficulties have you made adequate provision to manage distress?N/A

If your study involves participants covered by the Mental Capacity Act (i.e. adults over 16 years of age who lack the mental capacity to make specific decisions for themselves) do you have appropriate consent procedures in place? NB Some research involving participants who lack capacity will require review by an NHS REC. If you are unsure about whether this applies to your study, please contact the Ethics Administrator in the first instance

N/A

If your study involves patients have you made adequate provision to manage distress?

N/A

Does your study involve people in custody?

No

If your study involves participants recruited from one of the Neurology Patient Panels or the Psychiatry Patient Panel then has the protocol been reviewed by the appropriate expert/safety panel?N/A

If your study includes physically vulnerable adults have you ensured that there will be a person trained in CPR and seizure management at hand at all times during testing?N/A

Is there significant potential risk to investigator(s) of allegations being made against the investigator(s). (e.g., through work with vulnerable populations or context of research)? No

Is there significant potential risk to the institution in any way? (e.g., controversiality or potential for misuse of research findings.)No

Part 3: Risk Assessment

Is there significant potential risk to participants of adverse effects?

No

Is there significant potential risk to participants of distress?

No

Is there significant potential risk to participants for persisting or subsequent illness or injury that might require medical or psychological treatment?No

Is there significant potential risk to investigator(s) of violence or other harm to the investigator(s) (e.g., through work with particular populations or through context of research)?No

Is there significant potential risk to other members of staff or students at the institution? (e.g., reception or other staff required to deal with violent or vulnerable populations.)No

Does the research involve the investigator(s) working under any of the following conditions: alone; away from the School; after-hours; or on weekends?No

Does the experimental procedure involve touching participants?

No

Does the research involve disabled participants or children visiting the School?

No

Declaration

Declaration of ethical compliance: This research project will be carried out in accordance with the guidelines laid down by the British Psychological Society and the procedures determined by the School of Psychology at Bangor. I understand that I am responsible for the ethical conduct of the research. I confirm that I am aware of the requirements of the Data Protection Act and the University's Data Protection Policy, and that this research will comply with them.

Yes

Declaration of risk assessment The potential risks to the investigator(s) for this research project have been fully reviewed and discussed. As an investigator, I understand that I am responsible for managing my safety and that of participants throughout this research. I will immediately report any adverse events that occur as a consequence of this research.

Yes

Declaration of conflict of interest: To my knowledge, there is no conflict of interest on my part in carrying out this research.Yes

Part 2: A

The potential value of addressing this issue

Further details: See supporting document 'IRAS Form'.

Hypotheses

Further details: See supporting document 'IRAS Form'.

Participants recruitment. Please attach consent and debrief forms with supporitng documentsFurther details: See supporting documents 'IRAS Form', 'Information Sheet', and 'Opt-in Form'.

Research methodologyEstimated start date and duration of the study.

Further details: See supporting document 'IRAS Form'.

For studies recruiting via SONA or advertising for participants in any way please provide a summary of how participants will be informed about the

study in the advertisement. N.B. This should be a brief factual description of the study and what participants will be required to do.

Further details: N/A

Part 2: B

Brief background to the study

The hypotheses

Participants: recruitment methods, age, gender, exclusion/inclusion criteria

Research design

Procedures employed

Measures employed

Qualifications of the investigators to use the measures (Where working with children or vulnerable adults, please include information on investigators' CRB disclosures here.)

Venue for investigation

Estimated start date and duration of the study (N.B. If you know that the research is likely to continue for more than three years, please indicate this here).

Data analysisPotential offence/distress to participantsProcedures to ensure confidentiality and data protection

****How consent is to be obtained (see BPS Guidelines and ensure consent forms are expressed bilingually where appropriate. The University has its own Welsh translations facilities on extension 2036)***

Information for participants (provide actual consent forms and information sheets) including if appropriate, the summary of the study that will appear on SONA to inform participants about the study. N.B. This should be a brief factual description of the study and what participants will be required to do.

Approval of relevant professionals (e.g., GPs, Consultants, Teachers, parents etc.) Payment to: participants, investigators, departments/institutionsEquipment required and its availability

If students will be engaged a project involving children, vulnerable adults, one

of the neurology patient panels or the psychiatric patient panel, specify on a separate sheet the arrangements for training and supervision of students. (See guidance notes)

If students will be engaged in a project involving use of MRI or TMS, specify on a separate sheet the arrangements for training and supervision of students. (See guidance notes)

What arrangements are you making to give feedback to participants? The responsibility is yours to provide it, not participants' to request it.

Finally, check your proposal conforms to BPS Guidelines on Ethical Standards in research and sign the declaration. If you have any doubts about this, please outline them.

Amendment form

Participants' ability to give informed, voluntary consent

No

Participants' ability to voluntarily withdraw from the research

No

In questionnaire-based studies, participants' option to omit questions

YesFurther details: Participants will be required to complete an online survey. In order for participants to be routed to relevant sections of survey, responses to some questions are required.

Maintenance of confidentiality of participant data

No

The ability to give a full participant debriefing

YesFurther details: Participants will complete an online survey and will not have direct contact with principal investigator. Contact details of principal investigator will be made available for participants, should they want further information.

Risks to participants, investigators, or the institution

No

Do you intend to use additional questionnaires, please attach copies with

supporting documents.No

Does the nature of your request entails changes to consent/debriefing information, please attach the amended documents with supporting documents.YesFurther details: Verbal consent will no longer be sought. Participant will indicate consent by choosing to complete online survey.

Part 4: Research Insurance

Is the research to be conducted in the UK?

Yes

Is the research based solely upon the following methodologies? Psychological activity, Questionnaires, Measurements of physiological processes, Venepuncture, Collections of body secretions by non-invasive methods, The administration by mouth of foods or nutrients or variation of diet other than the administration of drugs or other food supplements

Yes

Research that is based solely upon certain typical methods or paradigms is less problematic from an insurance and risk perspective. Is your research based solely upon one or more of these methodologies? Standard behavioural methods such as questionnaires or interviews, computer-based reaction time measures, standardised tests, eye-tracking, picture-pointing, etc; Measurements of physiological processes such as EEG, MEG, MRI, EMG, heart-rate, GSR (not TMS or tCS as they involve more than simple 'measurement'); Collections of body secretions by non-invasive methods, venepuncture (taking of a blood sample), or asking participants to consume foods and/or nutrients (not including the use of drugs or other food supplements or caffine).Yes

Participant Invitation Email

Subject: DBT Survey and FREE Prize Draw!
Date: Monday, 12 October 2015 at 22:46:23 British Summer Time
From: Joanne Clair McMaster
To: Joanne Clair McMaster
Attachments: Image2790.png, Online info sheet v.12.10.15.docx, Foundation Spring 2016.pdf, Problem Solving Workshop 2016 Flyer.pdf

Dear Healthcare Professional,

Welcome to the DBT Implementation Survey!

We are conducting research to explore the factors that aid or hinder successful implementation of DBT into routine healthcare settings. As you have trained with British Isles DBT Training, you have been selected to participate in the research.

Participation involves completing a short online survey (see link below). Each participant who completes the survey will be entered into a prize draw to win a free place on the 5 Day Foundational Training and 2 free places on the DBT Skills Essentials Workshop, both taking place in spring 2016 (see attached flyers).

An information sheet providing details of the study is attached. To complete the survey, please click on the link below:

https://bangor.onlinesurveys.ac.uk/dbt-implementation-survey

Thank you in anticipation of your co-operation.

PRIFYSGOL BANGOR UNIVERSITY

British Isles DBT TRAINING

Sent from Windows Mail

Amended Participant Online Information Sheet

PRIFYSGOL
BANGOR
UNIVERSITY

Implementing DBT in UK Healthcare Settings

Dear Healthcare Professional,

I am a trainee clinical psychologist with the North Wales Clinical Psychology Programme (NWCPP) at Bangor University. As part of my doctoral qualification, I am currently conducting a study examining the factors related to successful implementation and sustainment of DBT programmes within routine UK healthcare settings. The research is sponsored by Bangor University and will be supervised by Dr Michaela Swales, Senior Lecturer, NWCPP, Bangor University.

Since 2007, British Isles DBT Training (BIDBTT) has trained in excess of 300 teams within the UK. Following training, teams of DBT trained clinicians are faced with the task of implementing DBT programmes within their service setting. The task of implementing a new intervention is a complex one with some DBT teams experiencing early programme failure, whilst others are able to sustain long-term. By increasing our understanding of the factors that aid or hinder the implementation process, we may be able to find out in which circumstances programme success is more likely and identify solutions to problems that are likely to result in programme failure.

We are seeking information regarding the experiences of DBT teams on the process of implementing DBT into their service setting. Information about you or anyone else in your team will only be available to the principal investigator. If your team is no longer active, this information will be updated on the BIDBTT database. All other information collected from this research will be kept private and anonymous. All data will be saved and stored onto an encrypted device.

Participation in the study is entirely voluntary and if you do not wish to participate you are under no obligation to do so. If you choose to participate, you will be entered into a prize

draw to win a free place on the 5 Day Foundational Training and two free places on the DBT Essential Skills Workshop, both commencing in spring 2016.

I would be grateful for your time in completing the online questionnaire as part of my study. The questionnaire should take no longer than 20 minutes and your anticipated support is very much appreciated. To go to the survey please click URL link contained within your welcome email. The closing date for responses is the **30th October 2015**.

Should you have any queries or would like further information, please do not hesitate to contact me at the following email address:

Joanne McMaster
Trainee Clinical Psychologist
North Wales Clinical Psychology Programme
Bangor University
psp2da@bangor.ac.uk

Thank you for your participation in this survey.

Participant Incentive

British Isles
DBT TRAINING

7-11 March 2016
Chester

British Isles DBT Training are affiliated with the Linehan Institute and Behavioral Tech LLC

The Linehan Institute BEHAVIORALTECH

5 Day Foundational Training

Course Description

The 5 day Foundational training is designed specifically for an individual or a small group of therapists (maximum of four) who are members of an Intensively Trained DBT Team, but who have not been intensively trained themselves. It is not a substitute for Intensive Training but is meant to assist teams that have employed new staff or experienced staff turnover.

The training will cover the standard content of DBT (equivalent to Part I of the 10 day Intensive Training). It will also assume that all participants work in an active DBT Programme, participate in a consultation team, and work within a comprehensively trained team.

Prerequisites

- All applicants require a core professional qualification in mental health (e.g. nursing, psychiatry, psychology, social work).
- All applicants must read the following texts prior to the training:
  - Linehan, MM (1993a) Cognitive-Behavioural Treatment of Borderline Personality Disorder
  - Linehan, MM (1993b) Skills Training Manual for Treating Borderline Personality Disorder
- All applicants must have an online team registration completed by their DBT Team Leader. This will confirm the details of the DBT Programme they are joining and also their support of the application.

Price: £1,100 (plus VAT)

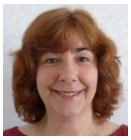
Register online at:

www.regonline.co.uk/Foundation-Spring2016

Registration Deadline 6 February 2016

Register before 31 December 2015 and save £165

Dr Christine Dunkley is a senior trainer with biDBT. She left the NHS in 2012 after 30 years service to concentrate on her role as a consultant psychological therapist across the UK & Ireland. An honorary lecturer at Bangor University, her publications include 'Teaching clients to Use Mindfulness skills' (Routledge) and 'Core components of DBT' (DVD series) She is also chair of the Society for DBT.



Dr Maggie Stanton is a Consultant Clinical Psychologist heading a team of psychological therapists in the NHS. She has 30 years experience of client work and supervising professionals from a range of backgrounds. She is a visiting lecturer at the University of Southampton for the Doctorate in Clinical Psychology and is currently a clinical lead on a large Randomised Control Trial providing an adaptation of DBT to clients with treatment resistant depression.

British Isles DBT Training, Croesnewydd Hall, Wrexham Technology Park, WREXHAM LL13 7YP

☎ **+44 (0)1978 346900** ✉ **info@dbt-training.co.uk** **www.dbt-training.co.uk**

British Isles
DBT TRAINING

18-19 January 2016
Queen Hotel CHESTER

British Isles DBT Training are affiliated with the Linehan Institute and Behavioral Tech LLC

The Linehan Institute BEHAVIORALTECH

DBT Problem-Solving Workshop

Problem solving forms the heart of the change procedures in DBT. Skilled DBT therapists succinctly analyse target behaviours, identify controlling variables and develop comprehensive solution analyses that move clients' towards more functional behaviours.

This post-intensive workshop, developed by Drs Heard & Swales based on their new book soon to be published by Guilford Press, focuses on identifying and solving the most common problems therapists encounter both in accurately conceptualising and practically conducting comprehensive and effective behavioural and solution analyses in DBT. This workshop is ideal for therapists wishing to improve their problem-solving skills ensure good clinical outcomes and move towards delivering more adherent DBT.

This workshop will count towards DBT teaching hours from recognised DBT trainers for those therapists interested in accreditation as a DBT therapist with the Society for DBT in the UK and Ireland.

Prerequisites

- Member of a DBT Team applying comprehensive DBT.
- Completed 10 day Intensive Level Training.
  (Applicants who have attended the 5 day Foundational Training, or are members of a DBT Team without a comprehensive programme will be considered on a case-by-case basis).
- Participants should come with a prepared behavioural and solution analysis for a client's target

Price: £600 (plus VAT)

Register online at:
https://www.regonline.co.uk/Masterclass-2016

****Registration Deadline January 10th 2016****

First 10 registrants receive a 25% discount

Dr Michaela Swales is a Consultant Clinical Psychologist & Senior Lecturer on the North Wales Clinical Psychology Doctoral Programme. She undertook training in DBT with Marsha Linehan in 1994 and went on to form the first UK DBT programme. She is recognised as an international expert on personality disorder and currently sits on the ICD-11 working group on the classification of personality disorder. She is the course leader for the world's first university qualification in DBT: the Post Graduate Certificate in DBT from Bangor University. For fifteen years Dr Swales led a DBT programme for suicidal and self-harming adolescents in a Tier IV service. Currently she leads a research therapy team delivering DBT to adults with treatment resistant depression.

Dr Heidi Heard is a senior international consultant and trainer in DBT and author on the original DBT outcome trial with Marsha Linehan. She is the US consultant to BIDBT, regularly travelling to the UK to deliver training and provide consultation to a range of clinical settings. She has written extensively on BPD, DBT and cost-effectiveness.

British Isles DBT Training, Croesnewydd Hall, Wrexham Technology Park, WREXHAM LL13 7YP

☎ **+44 (0)1978 346900** ✉ **info@dbt-training.co.uk** **www.dbt-training.co.uk**

Online Survey Schedule

DBT Implementation Survey

Page 1

Welcome to the DBT Implementation Survey.

This research aims to examine the factors related to the successful implementation and sustainment of DBT porgrammes within routine UK and Ireland healthcare settings. By examining the implementation process, we hope to gain valuable information regarding which circumstances are most likely to lead to programme success or programme failure.

The questionnaire has been devised based on the Consolidated Framework for Implementation Research (CFIR, Damschroder et al., 2009). Implementation is a complex process and has been conceptually divided into the following domains: intervention characteristics, outer and inner setting, characteristics of individuals, implementation processes, and sustainability. Some of the questionnaire items relating to each domain may be more relevant to your experience than others. However, any items that you deem non-relevant are of equal interest in our examination of the factors that aid or hinder implementation. Therefore, we would welcome any explanation as to why you may deem a particular item relevant or non-relevant.

There are three types of questions within the questionnaire: some are simple factual questions, others should be answered in your own words, and the last type are questions answered on a rating scale.

In submitting responses to this survey, the participant consents to take part and recognises that the information provided will be used for the purposes of the current study. All responses will be confidential and all published results will be anonymised.

You may stop participating in the research at any time. Should you wish to withdraw following submission of your responses, please contact the principal investigator named on the information sheet, and your data will be removed from the study and destroyed.

Section A

Are you still offering DBT?

- Yes
- No

If no, go to Section B by hitting next

When did you start to offer DBT in your service (round up to the nearest month and year)?

How many DBT clinicians are there in your service?

How many whole time equivalents (WTE) are in your DBT team? If you are unsure of this figure, please provide the sum total of the number of days each clinician devotes to DBT.

What is the professional categorisation of the DBT clinicians in your service?

- Clinical Psychologist
- Social Worker
- Nurse
- Psychological Therapist
- Counsellor
- Other

If you selected Other, please specify:

What is the location of your service?

- England
- Wales
- Scotland
- Northern Ireland
- Ireland

Was your team trained:

- On service site
- Off service site

Please state the nature of your service (e.g. AMH, CAMHS, etc.)

Which sector does your service fall under?

- Statutory
- Private

Section B

When did you stop offering DBT (please enter response in mm/yyyy format) * *Required*

Please tell me 3 things, in or out of your control that you think worked against sustaining DBT in your service. That is, please tell me why you think your service no longer offers DBT. * *Required*

Section C

Outcomes

Are you measuring client outcomes related to DBT?

☐ Yes ☐ No

If yes, how are the outcome data used?

Who sees the data?

How often and how long after the time period covered?

Penetration

How many clients are you serving with DBT now compared to when training had just been completed?

- [ ] considerably less
- [ ] about the same
- [ ] a lot more

Training/Consultation

Do you do new team member training?

- ( ) Yes
- ( ) No

Do you do booster training?

- ( ) Yes
- ( ) No

Have you sought advice concerning DBT from outside consultants within the last two years?

- ( ) Yes
- ( ) No

How much external consultation have you had in the last two years (i.e. DBT expert comes on-site to visit team)?

Have you had supervision from a DBT expert (i.e. weekly session review of therapy tapes typically by phone/in-person)?

- Yes
- No

Fidelity

Which aspects of DBT do you offer (please tick all that apply)

- One-to-one
- Skills training
- Consultation group
- Telephone support

How frequently and for how long each week does your consultation team meet?

Have you modified the DBT model to suit your service needs? That is, have you made changes to DBT in order to adapt to such things as socio-cultural milieu, local regulations or policies, client characteristics, practitioner skills or experience, or recent

research findings?

- Yes
- No

If yes, please describe briefly the local adaptations to the DBT model?

To what extent have you adapted DBT? Please rate the extent of the adaptations on a scale of 1 to 5, with 1 indicating a little and 5 indicating considerable adaptations.

	1	2	3	4	5	
Little adaptation						Considerable adaptation

At what stage in the implementation process did you make the adaptations?

- During initial training
- Once training was completed and 1 or more attempts of adhering to the DBT model had occurred

Is there anything else you would like to add to help in our understanding of the sustainment of DBT in your service?

Section D

Outcomes

Did you measure client outcomes related to DBT?

- Yes
- No

If yes, how were the outcome data used?

Who saw the data?

How often and how long after the time period the data covered?

Penetration

Following the initial training period, how many clients were you serving with DBT?

- considerably fewer than when training
- about the same
- a lot more

Training/Consultation

Did you do new team member training?

- Yes
- No

Did you do booster training?

- Yes
- No

Did you seek advice concerning DBT from outside consultants whilst your DBT programme was active?

- Yes
- No

How much external consultation did you have when your programme was active?

Did you receive supervision from a DBT expert (i.e. weekly session review of therapy tapes typically by phone/in-person)

- Yes
- No

Fidelity

What aspects of DBT did you offer (please tick all that apply)?

- One-to-one
- Skills training
- Consultation group
- Telephone support

How frequently and for how long each week did your consultation team meet? Please enter 0 if you did not carry out this aspect of DBT

Did you modify the DBT model to suit your service needs? That is, did you make changes to DBT in order to adapt to such things as socio-cultural milieu, local regulations

or policies, client characteristics, practitioner skills or experience, or new research findings?

- Yes
- No

If yes, please describe briefly the local adaptations you made to the DBT model.

To what extent did you adapt DBT? Please rate the extent of the adaptations on a scale of 1 to 5, with 1 indicating a little and 5 indicatiing considerable adaptation.

Little adaptation						Considerable adaptation

At what stage in the implementation process did you make the adaptations?

- During initial training
- Once training was completed and 1 or more attempts of adhereing to the DBT model had occurred

Is there anything else you would like to add that would help our understanding of why it was difficult to sustain DBT within your service?

Section E

The following are factors that may affect implementation of evidence-based practices. For each one, please choose on a scale that best describes its impact on your service's ability to implement DBT. The scale ranges from -2 to +2. A negative number indicates a factor that worked against successfully implementing DBT. A positive number indicates a factor that worked towards implementing DBT. The midpoint of the scale (0) indicates that the factor had no effect or that the negative and positive effects cancelled each other out.

Intervention Characteristics

Was the source of the decision to implement DBT in your service internal or external?

- Internal
- External

In what way, if any, did this affect implementation?

	-2	-1	0	1	2	
Hindered our attempts to implement successfully						Helped us to implement successfully

Quality of the evidence base for DBT

	-2	-1	0	1	2	

Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Perception of the advantages of implementing DBT in your service

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Extent to which DBT can be tailored to meet the needs of your service

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Trialability (i.e. the ease in which DBT could be piloted in your service before implementation)

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree

Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Perceived difficulty of implementing DBT within your service

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

DBT training

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Financing of DBT

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Would you like to expand further on any of the responses you have provided on this page?

Outer Setting (this includes the economic, political, and social context in which your service resides)

Involvement of clients and families in DBT

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Acceptability of DBT by clients

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Accessibility of DBT for clients

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Consultation with external agencies

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Have you received external supervision?

- ○ Yes
- ○ No

What impact, if any, did this have on implementation of DBT? *
Required

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Competitive pressure with other services/agencies

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Government or local health board policy

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Would you like to expand further on any of the responses you have provided on this page?

Inner Setting (includes the structural, communication, and cultural characteristics of your service)

Social architecture of service (e.g. age, size, level of expertise)

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Please briefly describe the social architecture of your service setting (i.e. size, age, level of expertise):

Practitioner turnover

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Leadership turnover

	-2	-1	0	1	2	

Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Division of labour among DBT practitioners

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Decision-making autonomy within your service

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Availability of DBT networks

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Feedback or other communication about DBT outcomes across the organisation

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Compatability of DBT with organisational values and goals

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

The absorptive capacity for change within your service

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Shared willingness to implement DBT among DBT trained clincians

	-2	-1	0	1	2	

Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Leadership engagement with DBT

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Availability of resources

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Shared perception of the importance of implementing DBT in your service

	-2	-1	0	1	2	

Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

***Learning climate within your service** (e.g. the extent to which individuals feel psychologically safe to try new methods and where sufficient time and space is provided to do so).*

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Would you like to expand further on any of the responses you have provided on this page?

Characteristics of Individuals

Practitioner attitudes towards DBT

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

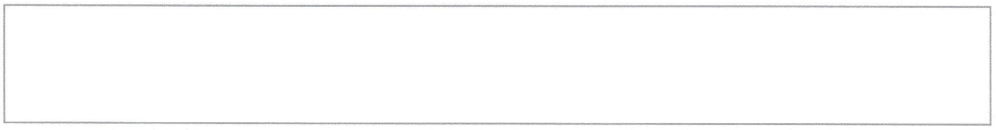
Skills of DBT practitioners

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Practitioner readiness for DBT

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Would you like to expand further on any of the repsonses you have provided on this page?



Implementation Process

Level of planning required for implementation tasks

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Selection process of DBT practitioners

	-2	-1	0	1	2	
Worked against successful implementation	☐	☐	☐	☐	☐	Worked towards successful implementatior

Appointment of DBT leader(s)

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Existence of DBT champion(s)

	-2	-1	0	1	2	

Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Influence of external change events

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Execution of implementation plan

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Evaluation and feedback of implementation efforts

	-2	-1	0	1	2	
Hindered our attempts to implement successfully	☐	☐	☐	☐	☐	Helped us to implement successfully

Would you like to expand further on any of the responses you have provided on this page?

Finish

Please enter your email address below:

Would you like to receive a short summary of the results of the study prior to them being made available to the public?

- Yes
- No

Thank you!

Thank you for taking the time to complete the survey.

Section 5: Appendices

Appendix 1

Table 1. Evaluation of methodological quality based on the Joanna Briggs Institute Critical Appraisal Checklist for Randomised Control/Pseudo-randomised Trial.

Citation	Inclusion Criteria										Total[a]
	Was assignment to treatment groups truly random?	Were participants blinded to treatment allocation?	Was allocation to treatment groups concealed from allocator?	Were the outcomes of people who withdrew described and included in the analysis?	Were those assessing outcomes blind to the treatment allocation?	Were the control and treatment groups comparable at entry?	Were groups treated identically other than for the named interventions?	Were outcomes measured in the same way for all groups?	Were the outcomes measured in a reliable way?	Was appropriate statistical analysis used?	
Dimeff et al., 2009	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	7
Dimeff et al., 2011	No	Unclear	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	7
Gega et al., 2007	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	7
Harned et al., 2011	Yes	Yes	No	Yes	N/A	Yes	Yes	Yes	Yes	Yes	8
McDonough & Marks, 2002	Yes	Unclear	No	N/A	Unclear	Yes	Yes	Yes	Yes	Yes	6
Rakovshik et al., 2013	Yes	No	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	8
Sholomskas et al., 2005	No	Unclear	Unclear	Unclear	Yes	Yes	Yes	Yes	Yes	Yes	6
Sholomskas & Carroll, 2006	Unclear	Unclear	Unclear	No	Yes	Yes	Yes	Yes	Yes	Yes	6

Note. N/A – Not applicable.

[a]A cut-off score of 5 or more criteria indicates suitability for inclusion in analysis

Appendix 2

Life Tables of Cohort Comparison Analyses

Case Processing Summary

Time of study	Total N	N of Events	Censored	
			N	Percent
Pre 07	70	13	57	81.4%
Post 07	212	58	154	72.6%
Overall	282	71	211	74.8%

Survival Variable: Age of programme

Life Table

First-order Controls		Interval Start Time	Number Entering Interval	Number Withdrawing during Interval	Number Exposed to Risk	Number of Terminal Events	Proportion Terminating	Proportion Surviving
Time of study	Pre 07	0	70	12	64.000	5	.08	.92
		365	53	22	42.000	5	.12	.88
		730	26	7	22.500	2	.09	.91
		1095	17	8	13.000	1	.08	.92
		1460	8	0	8.000	0	.00	1.00
		1825	8	5	5.500	0	.00	1.00
		2190	3	2	2.000	0	.00	1.00
		2555	1	1	.500	0	.00	1.00
	Post 07	0	212	27	198.500	13	.07	.93
		365	172	30	157.000	14	.09	.91
		730	128	26	115.000	12	.10	.90
		1095	90	37	71.500	10	.14	.86
		1460	43	4	41.000	4	.10	.90

Life Table

First-order Controls		Interval Start Time	Cumulative Proportion Surviving at End of Interval	Std. Error of Cumulative Proportion Surviving at End of Interval	Probability Density	Std. Error of Probability Density	Hazard Rate	Std. Error of Hazard Rate
Time of study	Pre 07	0	.92	.03	.000	.000	.00	.00
		365	.81	.05	.000	.000	.00	.00
		730	.74	.07	.000	.000	.00	.00
		1095	.68	.08	.000	.000	.00	.00
		1460	.68	.08	.000	.000	.00	.00
		1825	.68	.08	.000	.000	.00	.00
		2190	.68	.08	.000	.000	.00	.00
		2555	.68	.08	.000	.000	.00	.00
	Post 07	0	.93	.02	.000	.000	.00	.00
		365	.85	.03	.000	.000	.00	.00
		730	.76	.03	.000	.000	.00	.00
		1095	.66	.04	.000	.000	.00	.00
		1460	.59	.05	.000	.000	.00	.00

Life Table

First-order Controls	Interval Start Time	Number Entering Interval	Number Withdrawing during Interval	Number Exposed to Risk	Number of Terminal Events	Proportion Terminating	Proportion Surviving
	1825	35	11	29.500	2	.07	.93
	2190	22	12	16.000	2	.13	.88
	2555	8	7	4.500	1	.22	.78

Life Table

First-order Controls	Interval Start Time	Cumulative Proportion Surviving at End of Interval	Std. Error of Cumulative Proportion Surviving at End of Interval	Probability Density	Std. Error of Probability Density	Hazard Rate	Std. Error of Hazard Rate
	1825	.55	.05	.000	.000	.00	.00
	2190	.48	.07	.000	.000	.00	.00
	2555	.38	.11	.000	.000	.00	.00

Appendix 3

Life Tables of Site Comparison Analyses

Case Processing Summary

Site of Training	Total N	N of Events	Censored	
			N	Percent
On Site	52	17	35	67.3%
Off Site	214	27	187	87.4%
Overall	266	44	222	83.5%

Survival Variable: Prgramme Age

Life Table

First-order Controls		Interval Start Time	Number Entering Interval	Number Withdrawing during Interval	Number Exposed to Risk	Number of Terminal Events	Proportion Terminating	Proportion Surviving
Site of Training	On Site	0	52	1	51.500	1	.02	.98
		365	50	5	47.500	8	.17	.83
		730	37	4	35.000	0	.00	1.00
		1095	33	7	29.500	6	.20	.80
		1460	20	7	16.500	2	.12	.88
		1825	11	5	8.500	0	.00	1.00
		2190	6	5	3.500	0	.00	1.00
		2555	1	1	.500	0	.00	1.00
	Off Site	0	214	7	210.500	8	.04	.96
		365	199	35	181.500	5	.03	.97
		730	159	27	145.500	9	.06	.94
		1095	123	23	111.500	3	.03	.97
		1460	97	39	77.500	0	.00	1.00

Life Table

First-order Controls		Interval Start Time	Cumulative Proportion Surviving at End of Interval	Std. Error of Cumulative Proportion Surviving at End of Interval	Probability Density	Std. Error of Probability Density	Hazard Rate	Std. Error of Hazard Rate
Site of Training	On Site	0	.98	.02	.000	.000	.00	.00
		365	.82	.06	.000	.000	.00	.00
		730	.82	.06	.000	.000	.00	.00
		1095	.65	.07	.000	.000	.00	.00
		1460	.57	.08	.000	.000	.00	.00
		1825	.57	.08	.000	.000	.00	.00
		2190	.57	.08	.000	.000	.00	.00
		2555	.57	.08	.000	.000	.00	.00
	Off Site	0	.96	.01	.000	.000	.00	.00
		365	.94	.02	.000	.000	.00	.00
		730	.88	.02	.000	.000	.00	.00
		1095	.85	.03	.000	.000	.00	.00
		1460	.85	.03	.000	.000	.00	.00

Life Table

First-order Controls	Interval Start Time	Number Entering Interval	Number Withdrawing during Interval	Number Exposed to Risk	Number of Terminal Events	Proportion Terminating	Proportion Surviving
	1825	58	36	40.000	2	.05	.95
	2190	20	16	12.000	0	.00	1.00
	2555	4	4	2.000	0	.00	1.00

Life Table

First-order Controls	Interval Start Time	Cumulative Proportion Surviving at End of Interval	Std. Error of Cumulative Proportion Surviving at End of Interval	Probability Density	Std. Error of Probability Density	Hazard Rate	Std. Error of Hazard Rate
	1825	.81	.04	.000	.000	.00	.00
	2190	.81	.04	.000	.000	.00	.00
	2555	.81	.04	.000	.000	.00	.00

Appendix 4

Response Frequencies for Implementation Constructs

Implementation source

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	5	7.4	7.4	7.4
Neither aided or hindered	16	23.5	23.5	30.9
Aided	47	69.1	69.1	100.0
Total	68	100.0	100.0	

Quality of DBT evidence base

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	3	4.4	4.4	4.4
Neither aided or hindered	5	7.4	7.4	11.8
Aided	60	88.2	88.2	100.0
Total	68	100.0	100.0	

Perceived advantage to implementing DBT

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	4	5.9	5.9	5.9
Neither aided or hindered	11	16.2	16.2	22.1
Aided	53	77.9	77.9	100.0
Total	68	100.0	100.0	

How easily DBT can be tailored

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	3	4.4	4.4	4.4
Neither aided or hindered	19	27.9	27.9	32.4
Aided	46	67.6	67.6	100.0
Total	68	100.0	100.0	

Trialability

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	12	17.6	17.6	17.6
Neither aided or hindered	38	55.9	55.9	73.5
Aided	18	26.5	26.5	100.0
Total	68	100.0	100.0	

DBT training

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	9	4.4	4.4	39.7
Neither aided or hindered	7	27.9	27.9	89.7
Aided	52	67.6	67.6	100.0
Total	68	100.0	100.0	

Perceived difficulty of implementing DBT

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	27	39.7	39.7	39.7
Neither aided or hindered	34	50.0	50.0	89.7
Aided	7	10.3	10.3	100.0
Total	68	100.0	100.0	

Financing

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	35	51.5	51.5	51.5
Neither aided or hindered	13	19.1	19.1	70.6
Aided	20	29.4	29.4	100.0
Total	68	100.0	100.0	

Acceptability of DBT to clients

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	4	5.9	5.9	5.9
Neither aided or hindered	10	14.7	14.7	20.6
Aided	54	79.4	79.4	100.0
Total	68	100.0	100.0	

Accessibility of DBT to clients

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	11	16.2	16.2	16.2
Neither aided or hindered	12	17.6	17.6	33.8
Aided	45	66.2	66.2	100.0
Total	68	100.0	100.0	

Consultation with external agencies

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	4	5.9	5.9	5.9
Neither aided or hindered	39	57.4	57.4	63.2
Aided	25	36.8	36.8	100.0
Total	68	100.0	100.0	

Competitive pressure with other agencies

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	20	29.4	29.4	29.4
Neither aided or hindered	37	54.4	54.4	83.8
Aided	11	16.2	16.2	100.0
Total	68	100.0	100.0	

Government or local health board policy

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	12	17.6	17.6	17.6
Neither aided or hindered	37	54.4	54.4	72.1
Aided	19	27.9	27.9	100.0
Total	68	100.0	100.0	

Social architecture of your service

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	17	25	25	25
Neither aided or hindered	17	25	25	50
Aided	34	50	50	100.0
Total	68	100.0	100.0	

Practitioner turnover

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	40	58.8	58.8	58.8
Neither aided or hindered	17	25.0	25.0	83.8
Aided	11	16.2	16.2	100.0
Total	68	100.0	100.0	

Leadership turnover

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	16	23.5	23.5	23.5
Neither aided or hindered	34	50.0	50.0	73.5
Aided	18	26.5	26.5	100.0
Total	68	100.0	100.0	

Division of labour

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	21	30.9	30.9	30.9
Neither aided or hindered	17	25.0	25.0	55.9
Aided	30	44.1	44.1	100.0
Total	68	100.0	100.0	

Decision-making autonomy within service

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	16	23.5	23.5	23.5
Neither aided or hindered	14	20.6	20.6	44.1
Aided	38	55.9	55.9	100.0
Total	68	100.0	100.0	

Availability of DBT networks

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	9	13.2	13.2	13.2
Neither aided or hindered	24	35.3	35.3	48.5
Aided	35	51.5	51.5	100.0
Total	68	100.0	100.0	

Feedback of DBT outcomes

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	10	14.7	14.7	14.7
Neither aided or hindered	26	38.2	38.2	52.9
Aided	32	47.1	47.1	100.0
Total	68	100.0	100.0	

Compatibility of DBT with organisational goals

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	11	16.2	16.2	16.2
Neither aided or hindered	10	14.7	14.7	30.9
Aided	47	69.1	69.1	100.0
Total	68	100.0	100.0	

Absorptive capacity for change

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	21	30.9	30.9	16.2
Neither aided or hindered	25	36.8	36.8	30.9
Aided	22	32.4	32.4	100.0
Total	68	100.0	100.0	

Shared willingness to implement DBT

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	7	10.3	10.3	10.3
Neither aided or hindered	10	14.7	14.7	25.0
Aided	51	75.0	75.0	100.0
Total	68	100.0	100.0	

Leadership engagement with DBT

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	10	14.7	14.7	14.7
Neither aided or hindered	9	13.2	13.2	27.9
Aided	49	72.1	72.1	100.0
Total	68	100.0	100.0	

Availability of resources

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	28	41.2	41.2	41.2
Neither aided or hindered	10	14.7	14.7	55.9
Aided	30	44.1	44.1	100.0
Total	68	100.0	100.0	

Shared perception of the importance to implement

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	13	19.1	19.1	19.1
Neither aided or hindered	13	19.1	19.1	38.2
Aided	42	61.8	61.8	100.0
Total	68	100.0	100.0	

Learning climate

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	14	20.6	20.6	20.6
Neither aided or hindered	8	11.8	11.8	32.4
Aided	46	67.6	67.6	100.0
Total	68	100.0	100.0	

Practitioner attitudes towards DBT

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	7	10.3	10.3	10.3
Neither aided or hindered	8	11.8	11.8	22.1
Aided	53	77.9	77.9	100.0
Total	68	100.0	100.0	

Practitioner skills

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	5	7.4	7.4	7.4
Neither aided or hindered	7	10.3	10.3	17.6
Aided	56	82.4	82.4	100.0
Total	68	100.0	100.0	

Practitioner readiness for DBT

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	3	4.4	4.4	4.4
Neither aided or hindered	14	20.6	20.6	17.6
Aided	51	75.0	75.0	100.0
Total	68	100.0	100.0	

Level of planning required

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	20	29.4	29.4	29.4
Neither aided or hindered	19	27.9	27.9	57.4
Aided	29	42.6	42.6	100.0
Total	68	100.0	100.0	

Selection process of DBT practitioners

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	20	29.4	29.4	29.4
Neither aided or hindered	19	27.9	27.9	57.4
Aided	29	42.6	42.6	100.0
Total	68	100.0	100.0	

Appointment of DBT team leader

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	3	4.4	4.4	4.4
Neither aided or hindered	23	33.8	33.8	38.2
Aided	42	61.8	61.8	100.0
Total	68	100.0	100.0	

Existence of DBT champion

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	6	8.8	8.8	8.8
Neither aided or hindered	24	35.3	35.3	44.1
Aided	38	55.9	55.9	100.0
Total	68	100.0	100.0	

Influence of external change events

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	23	33.8	33.8	33.8
Neither aided or hindered	33	48.5	48.5	82.4
Aided	12	17.6	17.6	100.0
Total	68	100.0	100.0	

Execution of implementation plan

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	5	7.4	7.4	7.4
Neither aided or hindered	21	30.9	30.9	38.2
Aided	42	61.8	61.8	100.0
Total	68	100.0	100.0	

Evaluation and feedback of DBT efforts

	Frequency	Percent	Valid Percent	Cumulative Percent
Hindered	6	8.8	8.8	8.8
Neither aided or hindered	21	30.9	30.9	39.7
Aided	41	60.3	60.3	100.0
Total	68	100.0	100.0	

Appendix 5

Word Count Statement

Thesis Abstract:	269	**269**
Section 1: Literature Review		
Title Page:	55	
Abstract:	198	
Main Text:	4, 518	
Total Excluding References:		**4, 771**
References:	1, 358	
Tables & Figures:	598	
Total Including References, Tables, & Figures:		**6727**
Section 2: Empirical Paper		
Title Page:	53	
Abstract:	221	
Main Text:	4, 601	
Total Excluding References:		**4, 875**
Declarations:	258	
References:	1, 338	
Tables & Figures	582	
Total Including References, Tables, & Figures:		**7, 053**
Section 3: Contributions to Theory and Clinical Practice		
Main Text:	2, 885	

Total Excluding References:		**2, 885**
References:	261	
Total Including References:		**3, 146**

Appendix 1: Study Quality Assessment Table:	**246**
Appendix 2: Life Tables:	**531**
Appendix 3: Life Tables:	**409**
Appendix 4: Frequency Counts:	**1, 175**
Appendix 5: Word Count Statement	**143**

Thesis Total Excluding References & Appendices:	**12, 800**
Thesis Total Including References & Appendices:	**19, 699**