

The Feasibility of a One Day DBT Skills Workshop for Friends, Relatives and  
Partners of People with a Diagnosis of Borderline Personality Disorder

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## Overview

Part 1 of the thesis reviews the literature to determine whether there is an association between empathy and mindfulness. This is an emerging area of research and there is currently little support for a relationship between the global concepts of empathy and mindfulness. However, Perspective Taking which is a measure of the cognitive aspect of empathy and Personal Distress which measures a tendency for experiencing distress when witnessing the distress of others may be related to mindfulness. Further research is required.

Part 2 is an empirical study investigating the feasibility of a one-day workshop teaching Dialectical Behavioural Therapy (DBT) skills to the friends, relatives and partners of people receiving DBT treatment for BPD. It reports on one half of a joint study with Young (2012). There was no change in mindfulness or emotion regulation skills one month after the workshop but the invalidating environment between the person with BPD and their friends and family improved. Qualitative findings suggest that friends and family developed self-efficacy, coping skills, felt less isolated and gained compassion for the person with BPD. A larger scale study is feasible but protocol modifications are necessary.

Part 3 examines possible responses to issues that arose during the empirical study in three main areas; recruitment, design of the workshop and measurement of outcome. In particular, it is argued that future studies would benefit from inviting clients with BPD and their friends and family to help design and run the study.

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## Part 1: Literature review

Is there a relationship between empathy and mindfulness?

### **Abstract**

**Aims:** This systematic review aims to determine whether there is a relationship between mindfulness and empathy.

**Method:** A search was conducted for articles which included a standardised measure of empathy and a mindfulness based intervention and/or a standardised measure of mindfulness.

**Results:** Ten papers met the inclusion criteria; three were cross-sectional surveys, two were randomised controlled trials and five were uncontrolled studies. Overall the findings offer little support for a relationship between the global concepts of empathy and mindfulness. However, they do suggest that Perspective Taking, which is a measure of the cognitive aspect of empathy, and Personal Distress, which measures a tendency for experiencing distress when witnessing the distress of others, may be related to mindfulness. The studies tended to have small, self-selecting samples and a number of the interventions included components in addition to mindfulness that may have influenced empathy.

**Conclusions:** Further research is required. Studies will need to use measures that adequately measure the separate components of mindfulness and empathy. Large cross-sectional studies measuring mindfulness, empathy and possible mediating factors would help determine if there is an association. Including an empathy measure in large randomised controlled trials of studies examining a mindfulness intervention would help to determine if that association is causal.

## Introduction

Empathy is the basis of our social world because it allows us to understand each other and encourages us to help rather than hurt people. However, despite its importance, there is no consensual definition of empathy (Batson, 2009). Many researchers have adapted Rogers' (1980) definition:

*"[Empathy is] the therapist's sensitive ability and willingness to understand the client's thoughts, feelings and struggles from the client's point of view. [It is] this ability to see completely through the client's eyes, to adopt his frame of reference . . ." (p.85) . . . . "It means entering the private perceptual world of the other . . . . being sensitive, moment by moment, to the changing felt meanings which flow in this other person. It means sensing meanings of which he or she is scarcely aware . . ." (p. 142).*

Bohart and Greenberg (1997) use a similar but more concise definition;

*"Empathy is the process of entering into and understanding another person's experiential world" (Pistrang, Picciotto, & Barker, 2001, p.615; paraphrasing Bohart & Greenberg, 1997)*

Baron-Cohen and Wheelwright (2004) offer a more cognitively orientated definition:

*"Empathy is the ability to understand another's intentions, predict their behaviour and experience emotions that are triggered by their emotions." (p.163)*

The differences between these definitions demonstrate one of the main controversies for empathy researchers; most believe empathy consists of both emotional and cognitive components but there is considerable disagreement about the relative weight of the emotional and cognitive aspects (Duan & Hill, 1996).

Researchers focussing on the affective approach tend to define empathy as an observer's appropriate emotional response to the affective state of another (e.g. Eisenberg & Miller, 1987). They would consider a response to be empathetic if the observer's emotional reaction matched or differed from that of the person observed



(for example feeling pity at someone's sadness) but not if the emotion demonstrated a lack of concern for the other (for example feeling pleasure in response to another's pain).

The cognitive approach emphasises the ability to understand the other's feelings by putting aside one's own perspective, attributing a mental state (or attitude) to the other person and then inferring the likely content of their mental state given one's knowledge of that person's experience. The cognitive component of empathy has been referred to as a 'theory of mind' (Baron-Cohen, Leslie, & Frith, 1985).

Researchers also debate whether empathy is a relatively stable personality trait or a state that changes according to the situation or over time. Icke's (1993) empathic accuracy model suggests that empathy is both a trait and a state. Their model proposes that the ability for one person to 'read' another depends both on the perceiver's ability to understand cues and the other's ability to communicate them. However, people may unconsciously vary their ability to communicate or receive these cues if they expect it to cause them or the other distress.

The nature of the relationship between empathy and sympathy is also controversial. Some researchers believe sympathy is defined as experiencing another person's emotions, as opposed to appreciating or imagining those emotions (Stepien & Baernstein, 2006) whilst others define it as feelings of concern for the distressed person (Preston & De Waal, 2002). However, the majority view is that sympathy is a subset of empathy (Elliott, Bohart, Watson, & Greenberg, 2011). A person feeling sympathy towards another will have first experienced empathy in the form of an emotional response to their distress which then leads them to feel a desire to take action to alleviate the other person's suffering.

**What good is empathy?**

While debate continues over the precise definition of empathy there is a large body of evidence testifying to its benefits. Empathy is associated with a deepening sense of intimacy and greater satisfaction in personal relationships (Cramer & Jowett, 2010; Davis & Oathout, 1987; Devoldre, Davis, Verhofstadt, & Buysse, 2010); quicker reconciliation of interpersonal conflict (Halpern & Weinstein, 2004); increased success in the workplace (Vallero & Vesilind, 2006); better social cohesion (Björkqvist, Österman, & Kaukiainen, 2000; Stephan & Finlay, 1999) and improved well-being (Shanafelt et al., 2005). It is also negatively associated with symptoms of depression, emotional exhaustion, burnout and perceived stress (Thomas et al., 2007).

However, it should not be assumed that empathy will automatically lead to altruistic behaviour. Empathy can be deployed to cause harm. For example, a torturer may use it in order to sense how to increase their victim's suffering and in competitive environments (such as sports, business operations or even warfare) successful tactics take into account the negative affective effects that an action will have on the opponent. In addition, experiencing too much empathy can lead to an aversive distress response and selfish instead of other-oriented behaviour. However, despite the potential for empathy to be used to cause harm it is more often the first step in a process that leads to helping behaviour.

**What can be done to improve empathy?**

Interventions aimed at improving empathy have been attempted with a range of different groups including; college students (Hatcher et al., 1994); nursing staff (Herbek & Yammarino, 1990); student doctors (Stepien & Baernstein, 2006); parents

(Brems, Baldwin, & Baxter, 1993); couples (Long, Angera, Carter, Nakamoto, & Kalso, 1999) and offenders (Day, Casey, & Gerace, 2010).

The interventions used are as varied as the groups that have received them. A number of interventions have used conflict resolution and mediation techniques to improve empathy (Lane-Garon & Richardson, 2003; Sandy & Cochran, 2000; Wessells, 2005). Some interventions focus purely on teaching the behavioural aspects of empathy, such as the ability to communicate in a way that conveys empathy (Winefield & Chur-Hansen, 2000). Others have used narratives, role play or experiential learning to provide individuals with experiences and knowledge that increase their understanding of other's experiences (Stepien & Baernstein, 2006).

The studies tend to show a positive effect but suffer from many limitations: lack of conceptual clarity, small sample sizes, lack of comparison groups, few long-term assessments of durability of effect, and a reliance on self-assessment rather than objective measures of empathy. In summary, whilst some interventions aimed at improving empathy show promise there is currently little convincing evidence for interventions that directly increase empathy. Further research using more robust methodology is required to evaluate these interventions.

An alternative to directly teaching or training people in empathy is to teach or train skills that are known to indirectly improve empathy. This approach has the added advantage of being more acceptable to potential recipients of the intervention – some people might decline an intervention aimed solely at improving empathy because they may resent the implication that they need empathy training. One intervention that has been proposed as an indirect means of improving empathy, is mindfulness practice (Block-Lerner, Adair, Plumb, Rhatigan, & Orsillo, 2007).

**Mindfulness**

Kabat-Zinn (1982) defined mindfulness as a mental state in which one is attentive, aware, and accepting of the present moment, without becoming over-involved in cognitive or emotional reactions. More recently, Bishop et al. (2004) developed a consensus between leading researchers for an operational definition of mindfulness. They suggest a two component model. The first component involves the self-regulation of attention. Attention is maintained in the immediate experience, thereby allowing for increased recognition of mental effects in the present moment. They predict that this component of mindfulness should be associated with improvements in sustained attention and promote inhibition of the secondary elaborative processing that leads to processes such as rumination.

The second component involves adopting a particular orientation toward one's experiences in the present moment, an orientation that is characterised by curiosity, openness and acceptance. They predict that this should reduce avoidant behavioural and cognitive strategies and over time increase dispositional openness which is a trait characterised by curiosity and receptivity to new experiences (McCrae & Costa, 1997).

**Why might mindfulness affect empathy?**

Block-Lerner et al. (2007) propose a number of mechanisms by which mindfulness could affect empathy. One possible mechanism is decentring, or the ability to step back mentally from automatic judgments and impulsive reactions (Teasdale et al., 2002). The ability to accept another and their thoughts and feelings, without judgement, is fundamental to empathy (Wispé, 1986).

Mindfulness may also improve empathy by maintaining focus on the present moment. It is common for people to lose focus on what is actually happening during

highly emotional interpersonal interactions and become involved in rumination about past events or worry about the future. Mindfulness counters this tendency; if we are mindful we can acknowledge that we are no longer attending to the present and gently refocus ourselves (Kabat-Zinn, 1994). The ability to focus on what is happening, for another, in the present moment rather than being distracted by thoughts about the past or the future is a prerequisite for empathy.

The focus on the present also fosters the ability to view thoughts and feelings as transient mental events (Teasdale et al., 2002). This ability is referred to as metacognitive awareness. By viewing thoughts and feelings as transient mental events we can become more aware of our feelings and note the situations that give rise to those emotions. Focussing our attention on emotions and monitoring their consequences may deepen our understanding of their nature and impact. In time, we may learn to anticipate the kinds of experiences that lead to particular emotions. This knowledge can then be applied to understand the feelings, experiences and thoughts of others. In support of this notion, Strayer and Roberts (2004) found that children who are made aware of their own emotional reactions become better at understanding others' feelings. Furthermore, Decety and Jackson (2004) state that neurological studies have found that an understanding of our own emotional processes is essential for developing empathy.

Metacognitive awareness may also reduce the likelihood of a process occurring which can inhibit empathy called 'empathic over-responding' (Hoffman, 1982). Hoffman (1982) suggested that if people feel too distressed when empathising with another they may switch to focussing on their own distress. Metacognitive awareness brings with it the knowledge that a thought or feeling is only temporary and this makes it easier to tolerate difficult emotions. If people can tolerate more difficult

emotions they are less likely to have to turn their attention away from another due to their own distress.

Mindfulness may also improve empathy because it offers an alternative to thought suppression. To be empathic requires us to stay in the present moment and suspend our own thoughts and feelings (Long et al., 1999). However, suspending or suppressing cognitions and emotions often backfires (Wegner, Schneider, Carter, & White, 1987). It is, therefore, counterproductive to teach individuals to ignore or suppress thoughts and feelings in order to improve their experience and expression of empathy. Mindfulness may offer a way out of this predicament because a mindful approach would consider all thoughts, feelings and events equally valid targets for observation. There is, therefore, no conscious effort to block or suppress a particular thought so there is little risk of a rebound affect. However, once a thought is acknowledged attention remains focussed in the present so secondary elaborative processing that interfere with empathy, such as rumination, are inhibited. Farb et al. (2012) tested this hypothesis by training people with chronic dysphoria to use mindfulness as an alternative to cognitive attempts to suppress their thoughts and found it was effective in engendering self-compassion and empathy as well as reducing automatic negative self-evaluation.

### **Could empathy affect mindfulness?**

Most researchers have hypothesised that mindfulness affects empathy. However, it may be that empathy affects mindfulness or the relationship may be bidirectional. Hart (1999) argues that a true focus on active listening, an important aspect of empathy, is comparable to mindful meditation. This would suggest that focussed empathetic responding to others will improve mindfulness. Claxton (2005) proposes that mindfulness is only possible because of brain functions that evolved in

order to facilitate empathy which would have been a fundamental skill for our species survival.

### **Are there alternative explanations for a relationship between empathy and mindfulness?**

It may be that there is no direct relationship between empathy and mindfulness and another factor is responsible for any apparent relationship. For example, there is evidence to suggest that mindfulness reduces stress (Bishop, 2002; Mars & Abbey, 2010), ruminative thinking and trait anxiety (Chiesa & Serretti, 2009) and it may be that it is these changes that lead to an increase in empathy.

### **Aims and objectives**

Mindfulness may be causally related to empathy because it promotes a non-judgemental approach, allows us to stay focussed on the present and focussed on the other person even during highly emotional interpersonal interactions. It also gives us the opportunity to learn more about our own thoughts and feelings which can then be applied to understand the feelings, experiences and thoughts of others.

These compelling theoretical arguments have led many clinicians to assume that there is a causal relationship between mindfulness and empathy. Researchers such as Carson (2004) and Hased (2009) have already developed interventions based on this assumption. Carson (2004) developed a mindfulness based programme to improve couples' relationships and Hased (2009) developed a course to improve outcomes for medical students. However, there has never been a systematic review to establish whether there is empirical support for a relationship between mindfulness and empathy. This review will attempt to determine if there is a relationship between mindfulness and empathy, it will then determine whether the relationship is causal.

## **Method**

### ***Inclusion and exclusion criteria***

This review aimed to include (1) studies which employed (a) a standardised measure of empathy and (b) a standardised measure of mindfulness and/or a mindfulness based intervention, (2) quantitative studies in (3) peer reviewed journals. Thesis dissertations, qualitative research and articles not written in English were excluded.

### ***Search Strategy***

A systematic search of the electronic databases PsychINFO, Medline and EMBASE was conducted using the search terms; ‘empath\*’ and ‘mindfulness’ or ‘MBSR’(Mindfulness Based Stress Reduction) or ‘MBCT’ (Mindfulness Based Cognitive Treatment). The search was conducted in January 2012 and considered all the articles on the databases that met the search criteria. EMBASE articles are available from 1974, Medline articles are available from 1946 and PsychINFO articles are available from 1806.

The electronic search was supplemented by checking the reference lists on relevant search results. This was done to ensure that important articles were not missed although it did not identify any further papers. The search generated 80 papers of which ten met the inclusion criteria (see Table 1 for a brief summary).



Table 1: Summary of studies which examine the relationship between mindfulness and empathy

Study	Participants	Design	Intervention	Empathy measure	Mindfulness measure	Results
Shapiro et al. (1998)	73 medical students	RCT	MBSR	ECRS	-	Significant change in empathy $F(1,69)=4.3^*$
Shapiro et al (2011)	30 undergraduates	RCT	MBSR	IRI	MAAS	Very small effect size for empathy: $IRI=.02^*$
Beddoe & Murphy (2004)	16 nursing students	Pre-post	MBSR	IRI	-	No change in empathy
Birnie et al (2010)	41 members of the public	Pre-post	MBSR	IRI	MAAS	Medium effect sizes for empathy subscales: $IRI-PD=.49^{**}$ , $IRI-PT=.40^{**}$ , $IRI-EC=.16^{**}$
Galantino (2005)	84 hospital staff	Pre-post	MM	IRI	-	No change in empathy
Krasner et al (2009)	70 primary care physicians	Pre-post	Mindfulness Education	JSPE	FFMQ	Medium effect size for empathy: $JPSE=.45^{**}$ & subscales: $JPSE-PT=.38^{**}$ , $JPSE-SPS=.36^{**}$
Rimes & Wingrove (2011)	20 trainee clinical psychologists	Pre-post	MBCT	IRI	FFMQ	No change in empathy
Beital et al. (2005)	103 undergraduates	Cross-sectional	-	IRI	MAAS	Empathy subscales & mindfulness correlated: $IRI-PT=.41^{**}$ , $IRI-EC=.28^*$ , $IRI-PD= -.49^{**}$
Dekeyser et al. (2008)	113 grad students & 246 parents	Cross-sectional	-	IRI	KIMS	Empathy subscales mostly not correlated with mindfulness subscales except $IRI-PD$ $r= -.3^{**}$
Greason & Cashwell (2009)	179 counselling students	Cross-sectional	-	IRI	FFMQ	Empathy and mindfulness correlation: $IRI \beta=.27^*$ , Variance: $R^2=.07$ , $t=3.77^{**}$

Notes. Interventions: MBSR=Mindfulness Based Stress Reductions (Kabat-Zinn, 2003), MBCT=Mindfulness Based Cognitive Therapy (Segal, Williams, & Teasdale, 2002), MM=Mindfulness Meditation program based on MBSR & CBT. Empathy scales: IRI=Interpersonal Reactivity Scale (Davis, 1983) (subscales:  $IRI-PT$ =Perspective Taking,  $IRI-EC$ = Empathic Concern,  $IRI-PD$ =Personal Distress), ECR= Empathy Construct Rating Scale (La Monica, 1981), JSPE=Jefferson Scale of Physician Empathy (Hojat et al., 2001)(subscales:  $JPSE-PT$ =Perspective Taking,  $JPSE-SPS$ =Standing in Patients Shoes). Mindfulness Scales: MAAS=Mindfulness Attention Awareness Scale (Brown & Ryan, 2003), FFMQ=Five Facet Mindfulness Questionnaire (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), KIMS=Kentucky Inventory of Mindfulness Skills (Baer, Smith, & Allen, 2004). Significance levels: \*  $p < .05$ , \*\* $p < .01$ .

## **Results**

Ten relevant studies were found for this review. Three studies were cross-sectional surveys and seven evaluated a mindfulness intervention. Two of the intervention studies used a randomised controlled design whilst the remaining five intervention studies lacked a control group. There were no studies examining whether interventions aimed at improving empathy lead to an increase in mindfulness.

We will discuss the methodological strengths and weaknesses of these study designs and their findings below. However, before examining the study designs we will discuss a common challenge for all the studies; how to measure empathy and mindfulness.

### **Measuring empathy**

Duan and Hill (1996) argue that conflicting definitions and conceptualizations of empathy may account for contradictory findings in the literature. So it is fortunate that eight of the ten studies reviewed used the same measure - the Interpersonal Reactivity Index (IRI; Davis, 1983).

Items on the IRI are rated on a 5 point Likert scale and make up four subscales including; Perspective Taking (PT) which refers to the participants' ability to adopt others' perspectives in real-life situations, Empathic Concern (EC) which measures participants' ability to feel warmth, compassion and concern for others who are undergoing negative experiences, Personal Distress (PD) which measures a tendency for experiencing distress when witnessing the distress of others and the Fantasy

Scale (FS) which measures participants' tendency towards identification with fictional characters.

Davis (1980) showed that the IRI subscales had good test-retest reliability for a 2-month retest period (test-retest correlation coefficients ranged from 0.62 to 0.71), and good internal consistency (alpha ranged between 0.71 and 0.77). The validation study by Davis (1983) showed that the IRI subscales correlated in both the expected direction and strength with measures of social functioning, self-esteem, emotionality, and sensitivity to others.

Baron-Cohen and Wheelright (2004) questioned whether the fantasy subscale taps pure empathy. They thought it more likely that it assessed imagination or emotional self-control, and they state that although these factors may be correlated with empathy, it is clear that they are not empathy itself. The Personal Distress subscale is inversely correlated with other aspects of empathy (Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). The inverse correlation of the Personal Distress subscale and the questionable value of the Fantasy subscale mean that it does not make sense to use the unitary score of the IRI. Consequently, all but two of the studies in the review which used the IRI reported on its subscales scores rather than the overall IRI score.

In a review of the existing empathy measures, Baron-Cohen and Wheelright (2004) concluded that the IRI was the best measure of empathy because three of the four factors were directly relevant to empathy.

One of the studies that did not use the IRI was Krasner et al. (2009). They used the Jefferson Scale of Physician Empathy (Hojat et al., 2001) because it was more specific to the medical doctors who were their participants. It also utilises a five point Likert scale and has three subscales; perspective taking, compassionate care

and understanding the patients experience. Shapiro et al. (1998) also chose not to use the IRI and instead used a heavily adapted version of the Empathy construct rating scale (La Monica, 1981) which enabled them to report on empathy as a unitary construct.

### **Measuring mindfulness**

Mindfulness is a deceptively simple concept that is difficult to characterize accurately (Brown & Ryan, 2004). As a result, despite efforts at achieving operational definitions and corresponding measurement, researchers tend to disagree (Van Dam, Earleywine, & Borders, 2010). Three of the intervention studies in the review chose not to measure mindfulness, presumably because they assumed that their mindfulness intervention would be effective.

Shapiro et al. (2011), Birnie et al. (2010) and Beital et al. (2005) used the Mindful Attention Awareness Scale (MAAS; Brown & Ryan, 2003). It is a 15 item self-report scored on a 6 point Likert scale with internal consistency alphas ranging from 0.82 to 0.87, and good test–retest reliability. Brown and Ryan (2003) specifically chose items representing mindlessness because they thought people would be better able to report on their mindless states rather than the less common ‘mindful’ state. Unfortunately, cognitive neuroscience suggests that people are often unaware that they are in a ‘mindless’ state (Van Dam et al., 2010). The construct validity of the MAAS is therefore questionable. Rosch (2007) suggested that responses on mindfulness scales might actually be measuring a construct similar to level of psychopathology. In fact, the MAAS has consistently exhibited significant negative correlations with broad psychological constructs that are commonly related to psychopathology. (e.g. negative affect, Brown & Ryan, 2003; negative intrusive

thoughts or rumination, Frewen, Evans, Maraj, Dozois, & Partridge, 2008; neuroticism, Thompson & Waltz, 2007).

Greason and Cashwell (2009), Krasner et al. (2009) and Rimes and Wingrove (2011) used the Five Factor Mindfulness Questionnaire (FFMQ; Baer et al., 2006). The FFMQ is a synthesis of the Mindful Attention Awareness Scale (K. W. Brown & Ryan, 2003), the Frieburg Mindfulness Inventory (Walach, Buchheld, Buttenmüller, Kleinknecht, & Schmidt, 2006) and the Kentucky Inventory of Mindfulness Skills (Baer et al., 2004). It is a 39 item measure that uses a five point Likert scale to look at five factors of mindfulness: observing, describing, acting with awareness, non-judging of inner experience and non-reactivity to inner experience. Krasner et al. (2009) used a shortened form of the questionnaire which used just two factors of the mindfulness scale (the observing and non-reacting subscales).

The FFMQ has good psychometric properties in students, community members, meditators and non-meditators with internal consistency ranging from 0.81 to 0.86 and expected convergent and discriminant relationships with variables such as openness to experience, experiential avoidance, thought suppression and neuroticism (Baer et al., 2006). The Kentucky Inventory of Mindfulness Skills (KIMS) (KIMS; Baer et al., 2004) used by Dekeyser et al. (2008) has similarly strong psychometric properties (Baer et al., 2004) but at 39 items each the measures are often seen as too lengthy for studies which are also attempting to use a number of other measures. Krasner et al.'s (2009) solution was to only administer two factors from the FFMQ but this approach was not psychometrically validated.

Although the studies in this review used different measures of mindfulness it has been found that mindfulness measures are quite highly correlated with each other

(Baer, 2011) suggesting that they should be more easily comparable than it initially seems.

### **Cross-sectional surveys**

Three studies in this review used cross-sectional surveys to investigate whether mindfulness and empathy were correlated. Cross-sectional surveys can help answer this review's main question of whether there is a relationship between empathy and mindfulness but they cannot help determine the direction of causality.

Dekeyser, Raes, Leijssen, Leysen and Dewulf's (2008) study was the only study specifically designed to examine the correlation between mindfulness and empathy. Their study also examined the relation of mindfulness to body satisfaction and interpersonal anxiety. They had a sample of 246 parents and a second sample of 113 graduate students. They found that some but not all elements of mindfulness are related to elements of empathy. The Acting with Awareness subscale of the KIMS was negatively correlated with the Personal Distress subscale on the IRI ( $r = -.3, p < .01$ ) and a composite of the rest of the IRI scales was correlated with the Observe subscale of the KIMS. They state that their findings challenge the idea that all mindfulness exercises will increase empathy.

Greason and Cashwell (2009) did not primarily aim to investigate the correlation between mindfulness and empathy. They reported on the relationship between mindfulness and empathy for 179 counselling students because they thought empathy might have a mediating effect on the relationship between counselling self-efficacy and mindfulness. Overall their study showed that mindfulness is a significant predictor of counselling self-efficacy and attention is a mediator. Contrary to the hypothesis, empathy did not mediate counselling self-efficacy. They

also found that mindfulness scores predicted empathy ( $\beta=.27$ ) and accounted for 7% of the variance in IRI mean scores (adjusted  $R^2=.07$ ,  $t=3.77$ ,  $p<.01$ ). They had a response rate of 43% which is typical for a postal survey (Prince, Stewart, Ford, & Hotopf, 2003). However, non-responders are likely to be different from those that responded which suggests there will be some selection bias in the study and it may not be valid to generalise to the wider population.

Beitel, Ferrer and Cecero (2005) primarily aimed to explore the relationship among psychological mindedness and several facets of awareness including a general sense of mindfulness as well as more specific awareness of the self (self-consciousness) among 103 undergraduates. They took a secondary interest in the other variables they included such as empathy and found that mindfulness was significantly correlated with Perspective Taking ( $r=0.41$ ,  $p<.01$ ), Empathetic Concern ( $r=0.28$ ,  $p<.05$ ) and negatively correlated with the Personal distress ( $r=-0.49$ ,  $p<.01$ ) aspect of empathy.

### **Randomised Controlled Trials**

Experimental study designs give some of the strongest evidence for a relationship between two variables. If they are well designed they can also help determine if one variable has a causal relationship with another. This review found seven relevant intervention studies of which two were randomised controlled trials (RCTs).

Both the RCTs that have examined the effect of mindfulness interventions on empathy have been conducted by Shapiro and colleagues. Shapiro et al. (1998) investigated the short-term effects of a mindfulness-based stress reduction (MBSR) course on pre-medical and medical students' empathy, anxiety, psychological distress, depression and spiritual experiences. Thirty nine percent of the students

they asked to participate in the intervention agreed, 97% completed the intervention but 6% did not complete follow up measures. They matched the 78 medical and premedical students who agreed to participate by their gender, race and stage of training and randomly assigned them to either the mindfulness intervention or a wait list control group. They also taught mindful listening skills and gave participants empathy orientated experiential exercises alongside the MBSR intervention. They found that there was a significant improvement in empathy scores recorded immediately before the first session and after the last intervention session ( $F(1,69)=4.3, p<.05$ ). There was also a reduction in self-reported state and trait anxiety, a reduction in reports of psychological distress and increased scores for spiritual experiences.

A later RCT by Shapiro, Brown, Thoresen and Plante (2011) expanded the number of outcomes that were examined and assessed the effects of a MBSR course on various indicators of mental health (rumination, perceived stress, subjective well-being), psychological resilience (self-compassion, hope) and interpersonal well-being (empathy, forgiveness) which were measured immediately after the intervention and at 12 month follow up. The study uses data from a larger RCT but their study had just 15 undergraduates in their intervention condition and 15 in their wait list control group. They reported an improvement in empathy but the effect size of .02 is very small. Despite being statistically significant, a change of this magnitude is unlikely to have any clinically significant effect. They also had a very small sample for an RCT which can sometimes render the randomisation process ineffective and leave an uneven distribution of factors between the intervention and control groups that might influence empathy. However, they report no difference between the control group and intervention group at baseline.



### *Common strengths and limitations*

The workshop drop-out rates in the studies were very low. Shapiro et al. (1998) report a 3% drop out rate and Shapiro (2011) report 7% which suggests that there is very little attrition bias in either study.

The studies' use of wait list control groups means that it was not possible to blind the participants to their allocation to either the intervention or control group. This may increase the likelihood of bias because participants who are aware that they are receiving the intervention are more likely to report improvement or act in ways that suggest they have improved (Kirsch, 1985).

The studies are also vulnerable to the difficulties introduced by relying on self-selecting participants. Shapiro et al.'s (1998) medical students chose to take a mindfulness course as one of their electives at University. Similarly, Shapiro (2011) displayed advertisements at a small private university in California and recruited the undergraduates that responded to the adverts. Any potential selection bias should have been partially ameliorated by the randomisation of participants to the intervention and control condition. However, it is still difficult to know whether the results would generalise to anyone other than enthusiastic students.

### **Intervention studies without a control group**

Five of the intervention studies in this review did not include a control group. Krasner et al. (2009) developed a mindfulness based program and evaluated whether it could improve 70 primary care doctors' well-being, psychological distress, burnout and capacity for relating to patients (empathy). The study had an 8% response rate when they invited doctors to participate in their mindfulness intervention. On average, those who agreed to take part in the intervention attended 33 hours out of a

possible 52 (65%) and 27% of the sample did not complete the final follow up measure despite being offered \$250 to complete all the measures.

They attempted to partially compensate for the lack of control group by taking baseline measures a month before the intervention and then repeating the measures just prior to the intervention. The rationale being that the participants would act as their own controls and a repeated measures design gives the study more power.

In addition to the mindfulness intervention narrative and appreciative inquiry exercises were included in the workshops. They aimed to increase awareness of the self, communication and interpersonal relationships. They specifically taught their participants listening skills and to ask questions to deepen their understanding of storytellers experiences.

The key finding, relating to empathy, is that there were small-medium effect sizes for Perspective Taking which measures the cognitive aspect of empathy. They reported that mindfulness improved with relatively large effect sizes and the improvements in mindfulness were correlated with increases in the Perspective Taking subscale of physician empathy ( $r=.31$ ). The change in mindfulness was correlated with change in empathy immediately after the intervention but was not correlated with empathy at later follow up. They also found that clinicians were less burnt out and showed improvement to the order of medium effect sizes.

Beddoe and Murphy (2004) evaluated an MBSR programme's effect on stress and empathy for 16 baccalaureate nursing students. The study had a smaller sample size than was expected and was underpowered because 22% of their participants dropped out of the eight week intervention and a further 9% did not complete the follow up measures. They did not detect a change in empathy but found students became less anxious.

Birnie, Speca and Carlson (2010) studied the effects of MBSR on members of the public's stress, self-compassion, empathy, mood and well-being. The study was unusual in that it attempted to examine mindfulness' influence on the empathic responding of the wider population. However, because it was one of the University of Calgary's Continuing Education Courses they required that their participants pay for the workshop. This, and the drop out of 51% of their participants over the eight week programme, makes it less likely that the participants represented the wider population. Their mindfulness workshop also included a loving kindness and forgiveness mediation which could theoretically affect empathy to a larger extent than other forms of mindfulness.

Birnie et al.'s (2010) study found an association between mindfulness and some components of empathy. They found a small-medium effect size for Perspective Taking which measures the cognitive aspect of empathy, a medium effect size for the reduction in Personal Distress and a small effect size for the change in Empathic Concern. They also report correlation scores showing that mindfulness was negatively correlated with Personal Distress and positive correlated with Perspective Taking before and after the intervention. There was no correlation with Empathic Concern at either time point.

Galantino, Baime, Maguire, Szapary and Farrar (2005) set out to evaluate an eight week mindfulness meditation program based on MBSR which aimed to improve stress, empathy and burnout for 84 health care professionals. They mainly focussed on stress as their outcome of primary interest and they measured both subject-reported stress symptoms and salivary cortisol. A strength of this study is that it did not rely on people self-selecting themselves for the study because it was

included as part of staff training in a university hospital. There was an 18% attrition rate and the study did not detect a change in empathy following the training.

Rimes and Wingrove (2011) aimed to investigate the impact of a mindfulness-based cognitive therapy (MBCT) intervention that was modified for stress rather than depression on 20 trainee clinical psychologists' stress, empathy, rumination and self-compassion. This study benefited from a lack of attrition (all of their participants responded to all measures) and there was a high level of participation in the intervention with an 86% attendance rate at sessions and an average 91.9mins (SD=74.3) of practice at home each week. However, they were concerned that they may have biased their sample because they operated a first-come-first served recruitment method which meant that trainees who were more enthusiastic about mindfulness or felt they needed more help with mindfulness were more likely to be a part of the sample. Empathy did not change following the workshop but there was a significant increase in mindfulness and self-compassion alongside a significant decrease in rumination. They also found that a reduction in stress correlated with an increase in empathic concern.

#### *Common strengths and limitations*

In an attempt to maximise the benefits of their interventions Birnie et al. (2010), Krasner et al. (2009) and Galantino et al. (2005) emphasised group processes. Participants were encouraged to talk through their experiences and problem-solve together as well as offer social support and share ideas both in and out of the groups. Working within a group, listening, sharing ideas and having time to reflect with other people may in itself have an impact on empathy and could offer an alternative explanation for any improvement in empathy after the intervention.

## Discussion

### Summary of findings

This review examines what seems to be an emerging area of research. The earliest available study was from 1998 and the majority of the studies were published in the last few years.

The review identified two RCTs which measured the change in empathy following an eight week mindfulness course (Shapiro et al., 2011, 1998). They found that empathy improved but the effect sizes were very small. There were five uncontrolled studies which measured the change in empathy following mindfulness workshops. The studies found mixed results; three found that empathy did not change (Beddoe & Murphy, 2004; Galantino et al., 2005; Rimes & Wingrove, 2011), one found a medium effect size (Krasner et al., 2009) and one found small-medium effect sizes for the Perspective Taking and Personal Distress components of empathy (Birnie et al., 2010).

Two of the studies administered outcome measures at multiple time points in order to determine whether the workshop had a mid-long term effect. Shapiro et al. (2011) reported an effect size of 0.3 at 12 month follow up compared to an effect size of 0.2 at 2 month follow up. Krasner et al. (2009) measured outcomes at baseline, immediately after the workshop, at 2 month follow up and at 12 month follow up and found that the improvement in empathy scores was maintained over time.

There were three cross-sectional studies which measured mindfulness and empathy. Greason and Cashwell (2009) found that 7% of the variance in empathy was explained by changes in mindfulness. Dekeyser et al. (2008) found that only the Personal Distress subscale of the IRI empathy measure was weakly correlated with

mindfulness. Beital et al. (2005) found that Perspective Taking, Empathic Concern and Personal Distress were correlated with mindfulness. Personal Distress is negatively correlated with other components of empathy and was, therefore, negatively correlated with mindfulness.

Overall the findings offer little support for a relationship between the global concepts of empathy and mindfulness. This is not unexpected because empathy, as measured by the IRI, is not a unitary construct. The studies suggest that Perspective Taking which is a measure of the cognitive aspect of empathy and Personal Distress which measures a tendency for experiencing distress when witnessing the distress of others may be related to mindfulness.

### **Summary of limitations and recommendations for further study**

#### ***Study design and sample size***

The study of the association between empathy and mindfulness is an emerging area of research and this is reflected by the relatively small sample sizes in this review and the use of pre-post designs rather than controlled studies in the intervention studies.

Cross-sectional surveys offer a cost effective method of investigating associations between variables such as empathy and mindfulness. Future studies would benefit from larger sample sizes because they will be better able to detect smaller associations. They should also measure variables that may mediate or moderate an association between mindfulness and empathy such as stress, psychological distress, state and trait anxiety or self-compassion (Birnie et al., 2010; Davis, 1983; Galantino et al., 2005).

Future studies aiming to investigate whether there is a casual relationship between mindfulness and empathy would benefit from examining the criteria set by

Hill (1965). The criteria state that for there to be a causal relationship; a strong effect size should be evident, the association should be observed repeatedly in different populations and circumstances, the cause should lead to a single effect, the cause should precede the effect, there should be a dose-response relationship, the relationship should be biologically plausible, and evidence from experimental research should be available. The best research methodology to establish a causal relationship between mindfulness and empathy is, therefore, the randomised controlled trial (RCT). Ideally, there should be a sufficient number of RCTs to allow a meta-analysis which would generate an estimate of the strength of the effect across the population, demonstrate that the cause came before the effect and measure the dose-response. However, it is unlikely that funding will be made available for large RCTs examining mindfulness and empathy but researchers could justify adding empathy measures to larger trials of mindfulness interventions. Current evidence and most theorists argue that changes in mindfulness cause changes in empathy but it is feasible that empathy affects mindfulness (Claxton, 2005; Hart, 1999). Experimental study designs, preferably controlled trials, should be used to test whether empathy affects mindfulness or whether the association is bidirectional.

#### *Generalizability of the findings*

The studies in this review cover only a small subsection of the population. This is not a limitation of the individual studies because they were aiming to understand a particular group of people. However, it does limit the number of people to which the findings of this review can be generalised.

All but three of the studies in the review had student participants. Six of the studies sampled health care professionals (four of the studies sampled student health care professionals). Only Birnie et al.'s (2010) study involved a group of participants

who were not students or health care professionals. But their study recruited members of the public who voluntarily chose to study and pay for a short course at a university so they may not have been representative of the general public.

The student samples are likely to differ from the general population in a number of ways including socio-economic status and age. Health care professionals are also likely to differ substantially from the general population in terms of socio-economic status and education. Beddoe and Murphy (2004) suggested that their participants were also more empathetic than the general public. They state that the pre-test mean scores in all 4 IRI dimensions were 40-50% higher than the means of female college students of the same age in two other studies. People with a health care background also tend to believe that they should be more empathetic than the general public (Mercer & Reynolds, 2002). This belief may lead to a response bias to questions relating to empathy as they attempt to meet the expectations placed on them by themselves and others.

The studies in this review tended to have many more women than men (87% of the participants were women). The overwhelming number of women in these studies makes it unwise to generalise the review's findings to men. This is especially true as there is some suggestion that empathy differs in men and women, with women tending to be slightly but significantly more empathetic than men (Baron-Cohen & Wheelwright, 2004). It may be that the relationship between mindfulness and empathy is mediated or modified by gender but we would need studies that included male participants to be able to establish this.

Many of the intervention studies in the review had a high drop-out rate or poor intervention attendance. Participants who declined the offer to participate in a mindfulness study or who drop out of a mindfulness intervention may differ from



those who stay in the study. In intervention studies it is often assumed that those who dropout did so because they had more negative views of the intervention. The main implication of the studies' low response rates and high attrition rates is that the findings from this review may only apply to people who are willing to engage in mindfulness.

Studies are needed in which the participants are as representative of the general population as possible and have low attrition rates in order to answer the question of whether mindfulness is related to empathy for the general population.

### *Interventions included more than mindfulness*

One major methodological flaw of many of the intervention studies in this review is the inclusion of additional teaching or other processes alongside the mindfulness intervention. In some cases participants were actively taught empathy or skills designed to increase empathy. In other interventions, participants spent a lot of time on group processes. It is therefore possible that the empathy teaching or group processes improved empathy rather than it being a result of increased mindfulness. If the intervention independently improves mindfulness and empathy then mindfulness and empathy would falsely appear to be associated.

Future studies might seek to determine which elements of the workshop are most effective so that these elements can be developed and the less effective components dropped. This could be achieved by experimentally comparing workshops which teach only a standard form of mindfulness to workshops that use additional elements such as direct instruction on empathy or group processes.

### *Measurement error*

The findings from this review are likely to have been heavily influenced by the way in which empathy and mindfulness were measured. Both empathy and

mindfulness are difficult concepts to define. It was advantageous to this review that the IRI was used to measure empathy in the majority of the studies because it allows easier comparison of the results. It is important to note that the IRI is not a unitary measure (Lawrence et al., 2004) which may account for the lack of evidence for a relationship between global empathy scores and mindfulness.

A number of different instruments were used to measure mindfulness but a strength of mindfulness measures is that they are known to correlate strongly. However, three of the intervention studies did not measure mindfulness, presumably because they assumed that the mindfulness intervention would be effective and did not want to further burden their participants. There is research evidence to show that mindfulness is likely to improve after a mindfulness intervention (Carmody & Baer, 2008) but this is not always the case (Grossman, Niemann, Schmidt, & Walach, 2004) and the risk of not measuring mindfulness is that we do not know whether mindfulness did improve as expected with the intervention. If mindfulness and empathy are casually related we would not expect to see any improvement in empathy without an improvement in mindfulness. Recording both mindfulness and empathy also allows us to see if there was a dose-response relationship with those who improve more in mindfulness also improving more in empathy. It is also harder to refute the idea that other aspects of the course improved empathy rather than the mindfulness component.

### *Self-report*

The studies in this review rely on self-report which means that they are more vulnerable to bias since participants may alter their responses in order to please the researcher. This may be because they believe a certain response is socially desirable

or because the placebo effect means they falsely believe they have been influenced by the intervention and answer accordingly.

Self-report measures asking about complex concepts such as empathy and mindfulness also require an individual to be relatively self-aware to be able to answer the questions accurately. It could be that empathy scores change after a mindfulness intervention not because empathy has changed but because self-awareness has improved.

Self-report measures may also reduce the validity or accuracy of the measurement. Self-report measures can only assess the individual's beliefs about their own empathy or mindfulness, or how they might like to be seen or think about themselves, and this may be different to how empathic they are in reality.

Future studies would benefit from attempting to validate self-report scores. Empathy scores could be considered more valid if the studies compared an individual's own self-assessed empathy scores with those based on the ratings of a partner, parent or someone else who knows the individual well. In the future it may be possible to use brain scanning technologies to corroborate mindfulness self-report scales. However, although these methods are yielding fascinating results in both long-term meditators and participants in mindfulness-based interventions (Kilpatrick et al., 2011), it is not yet clear that brain scans can be used to quantify the general tendency to be mindful in daily life. Self-report measures are imperfect but for now they seem the most practicable.

### *Durability of effect*

Shapiro et al. (2011) and Krasner et al. (2009) measured outcomes at multiple time points to determine whether changes in outcomes were maintained, improved or dissipated over time. Shapiro et al. (1998) were concerned that participants'

responses to the outcome measures might be influenced by a temporary state of relaxation as a result of the workshop. They tried to minimise this effect by asking participants to walk outside for 20 minutes before completing the outcome measures.

The four remaining intervention studies in this review measured outcomes immediately before the first workshop and immediately after the last workshop. They do not report attempting to minimise the influence of a temporary state that might result from being involved in the workshop.

Future studies would benefit from taking measures at multiple time points in order to demonstrate that any observed changes are not just temporary and to reduce the likelihood that results are influenced by the situation or current state that the individual is in when the measures are administered.

### **Limitations of the review process**

Just as there were methodological issues in the reviewed studies the review process itself had some methodological flaws. It was necessary for the review to be conducted by one researcher but Petticrew et al. (2006) suggests that one in ten of the relevant studies that should be in a systematic review will be missed by a lone reviewer. However, given the low number of studies available this is less likely to have been a significant problem. It would also have been better to reach a consensus about the studies' methodological issues and findings with another reviewer.

### ***Publication bias***

The choice to exclude articles that did not feature in peer reviewed articles may also have increased the likelihood of the review being influenced by publication bias. In conducting the systematic search to identify studies for this review it was observed that there were a number of papers that were not published in peer reviewed journals, such as unpublished doctoral theses, that had aimed to explicitly

examine the relationship between mindfulness and empathy. The majority of these papers reported that they had not detected a relationship between mindfulness and empathy. It is possible that these articles remain unpublished because journals tend not to publish negative findings but equally it is not uncommon for doctoral theses to remain unpublished for other reasons. The choice to exclude articles that did not appear in peer reviewed articles still seems valid because it would have been difficult to ensure that the articles contained sufficient academic rigour to be considered on par with other research articles.

### **Clinical implications**

It is not uncommon for clinicians to assume that improving mindfulness will lead to an increase in empathy. Some interventions have already been developed or partially justified based on this assumption. For example, Carson (2004) developed a mindfulness based programme to improve couples' relationships and Hassed (2009) developed a course to improve outcomes for medical students.

This review suggests that it might be premature to act as if mindfulness is causally related to empathy. More research is needed to determine the true nature of the relationship or determine if such a relationship actually exists.

### **Conclusions**

The review shows that research relating to mindfulness and empathy is in an emergent phase. There is no convincing evidence that the global construct of mindfulness is related to the global construct of empathy. However, there is evidence to suggest that mindfulness might be correlated with the cognitive component of empathy and the ability to tolerate other people's emotions. Further research is required to provide evidence to support or refute this association. Studies will need to use measures that adequately measure the separate components of mindfulness

and empathy. Large cross-sectional studies measuring mindfulness, empathy and possible mediating factors would help determine if there is an association. Including an empathy measure in large randomised controlled trials of studies examining a mindfulness intervention would also help to determine if that association is causal.

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Part 2: Empirical paper

The feasibility of a one day DBT skills workshop for friends, relatives and partners  
of people with a diagnosis of Borderline Personality Disorder

### **Abstract**

**Background:** People who have a diagnosis of Borderline Personality Disorder (BPD) experience a great deal of psychological distress. Their relationships with others can mediate their distress yet they find it difficult to maintain relationships.

**Method:** This study examines the feasibility of a one day workshop teaching Dialectical Behaviour Therapy (DBT) skills to the friends, relatives and partners of people who have a diagnosis of BPD. A single group, repeated measures design was used to test the primary outcome hypothesis; that one month after the workshop, attendees' emotion regulation and mindfulness skills will be improved. A single cohort pre-post design was used to test the secondary outcome hypothesis; that a month after the workshop, people with BPD will rate the environment between themselves and their friend or relative as more validating. The feasibility of the workshop was addressed, in part, through thematic analysis of semi-structured interviews with the participants at one month follow up.

**Results:** Recruitment to the workshop was poorer than expected; 22 people, invited by 17 clients with BPD, participated. There was no change in mindfulness or emotion regulation skills as a result of the workshop but there was a significant difference between the perceived invalidating environment before (Mdn=1.93, IQR=1.29) and one month after (Mdn=1.64, IQR=0.82) the workshop ( $p=.023$ ). Qualitative findings suggest that friends and family developed self-efficacy, coping skills, felt less isolated and gained compassion for the person with BPD.

**Conclusions:** A larger scale study is feasible but protocol modifications are necessary. A three armed randomised controlled trial comparing the one day DBT skills workshop, with a wait list control group and a teaching and social support group is recommended.

## **Introduction**

The DSM-IV states that the essential feature of Borderline Personality Disorder (BPD) is a ‘pervasive pattern of instability of interpersonal relationships, self-image, affects and marked impulsivity that begins by early adulthood and is present in a variety of contexts’ (American Psychiatric Association, 2000). Clinical signs of the disorder include emotional dysregulation, impulsivity, aggression, repeated self-injury, and chronic suicidal tendencies. It affects about 1–2% of the general population (Coid, Yang, Tyrer, Roberts, & Ullrich, 2006).

People who have been given a diagnosis of BPD often meet DSM criteria for other psychiatric illnesses. Zanarini et al (1998) found that 83% of people with a diagnosis of BPD met criteria for major depression, 64% met criteria for substance misuse, 55% met criteria for post-traumatic stress disorder and 53% met criteria for an eating disorder.

The relationships that people with BPD have with others can mediate their level of psychological distress and have a significant impact on their overall functioning (Gunderson et al., 2006). However, people with BPD often find it difficult to maintain relationships.

### **Development & maintenance of BPD: A Transactional Model**

Marsha Linehan and colleagues have described a transactional model for the development and maintenance of BPD (Fruzzetti, Shenk, & Hoffman, 2005; Linehan, 1993) which helps explain why relationships pose such difficulty for people with BPD. The transactional model hypothesises that some people have certain vulnerabilities to negative emotions and emotional dysregulation. These vulnerabilities are likely to be determined both biologically and as a result of early learning. If someone with a vulnerability to emotional dysregulation experiences an

‘invalidating environment’ they are likely to become more vulnerable which in turn leads to them being further invalidated by the people around them. This interaction between vulnerability to emotional dysregulation and an invalidating environment can result in an escalating and increasingly problematic cycle.

### ***Invalidating environments***

In an invalidating environment communication tends to be characterised by high negative emotion (e.g., disgust, contempt, condescension, or other emotions associated with disrespect), high levels of negative judgment (e.g., the person is told their feelings, desires, actions, or thoughts are ‘wrong’), or the person’s valid experiences are dismissed as illegitimate (Fruzzetti & Iverson, 2004).

Most people find being invalidated increases their emotional arousal whereas being validated soothes and helps ameliorate painful emotions (Fruzzetti, 2006). High emotional arousal tends to result in lower cognitive capacity, poorer self-awareness and less ability to solve problems. Consequently, it is difficult to express emotions accurately, others are less likely to understand and further invalidation is more likely.

### ***Vulnerability to emotional dysregulation***

Exposure to invalidating responses is particularly problematic for someone who has a high vulnerability to emotion. Emotion vulnerability is defined and determined by three factors: emotion sensitivity, emotion reactivity, and slow return to baseline arousal (Linehan, 1993). People with high sensitivity to emotionally relevant stimuli (with or without conscious awareness) are more likely to notice and therefore react to emotions. People who have high reactivity to emotion respond to emotions more quickly and with greater intensity than others. Those who take longer to return to their baseline level of arousal are more vulnerable to the next emotionally relevant

event in their life. If an individual is high in all three of these factors then they would be very vulnerable to developing the chronic emotional dysregulation which is thought to be the core feature of BPD (Linehan, 1993).

However, just being very vulnerable to emotional dysregulation is not sufficient to cause BPD. In a validating environment the individual is liable to learn skills that enable them to manage their vulnerabilities. Thus it is the transaction between an invalidating environment and vulnerability to emotional dysregulation which leads to the development and maintenance of BPD.

### ***Relationship difficulties as adults***

As adults, people with BPD tend to continue to lack the skills to regulate their emotions and they often continue to struggle with relationships. When they feel invalidated by someone they are likely to react strongly and they can quickly find themselves in an escalating cycle of invalidating responses with the other person. This can culminate in aggressive behaviours or, lacking the ability to regulate their emotion in more adaptive ways, the person with BPD may try to escape their emotions using destructive and impulsive behaviours such as self-harm, substance use, bingeing or purging, etc.

### **Experiences of being in a relationship with a person with BPD**

Friends, relatives and partners of people with BPD often find their relationships very rewarding and report many positives that they would not want to give up (Mason & Kreger, 1998):

*“Once in a while the ‘old’ her comes back – the one that loved me and thought I was the greatest guy in the universe. She’s still the smartest, funniest, sexiest woman I know and I’m still very much in love.”*

*Quote from Jon who is married to someone with BPD (Mason & Kreger, 1998)*

However, their interactions can be extremely difficult and some find that their relationships deteriorate to such an extent that the relationship is aversive for both of them.

*“If I had cancer, at least I would die just once. This emotional abuse ensures that I die many, many times and that I will always live on the edge.”*

*Quote from a partner of someone with BPD (Mason & Kreger, 1998)*

Research has found that family members of people with BPD tend to have high levels of distress, loss, grief, and burden (Hoffman, Buteau, Hooley, Fruzzetti, & Bruce, 2003) and that their family interactions are often distressed (Fruzzetti et al., 2005).

*“Living with someone with BPD is like living in a pressure cooker with thin walls and a faulty safety valve.”*

*Anonymous quote (Mason & Kreger, 1998)*

Friends, relatives and partners may also have their own psychiatric difficulties including depression, anxiety, BPD or another personality disorder. Their psychiatric difficulties may be worsened by the negative emotional interactions that are likely to occur when interacting with a person who has BPD (Butzlaff & Hooley, 1998; Hooley & Hoffman, 1999).

### **Current support for friends, family and partners**

There is a large body of evidence which demonstrates the benefits of family involvement in the treatment of clients with Axis I disorders. However, the friends and families of people with a diagnosis of BPD are frequently neglected (Glick & Loraas, 2001; Hoffman et al., 2005) and only a few programs have been developed.

Family Psycho-education (FPE) is the most researched intervention for families of people with mental illness (McFarlane, Dixon, Lukens, & Lucksted, 2003). The central goal in FPE is to reduce the level of expressed emotion in the family in order

to improve outcomes for the client. It relies on teaching families about the psychiatric disorder and helping them develop skills to modify their attitudes and behaviour toward the patient. It is usually conducted in a multi-family group serving six to eight families, which provides it with a social support component that participants highly value. However, although people with BPD typically have co-occurring Axis I disorders, the essence of their difficulties and the associated problems that their families encounter are not really addressed in traditional FPE or modified versions of FPE such as Family Education (FE) (Hoffman & Fruzzetti, 2007). A major difference is highlighted by Hooley and Hoffman (1999) who found that contrary to other psychiatric disorders good clinical outcome in BPD is strongly associated with high levels of family emotional over-involvement which people with BPD experience as validating.

One programme that has demonstrated positive outcomes for people with BPD and their family members is the Family Connections Programme (FC) developed by the National Education Alliance for Borderline Personality Disorder (Hoffman et al., 2005). The programme is a family education version of Dialectical Behavioural Therapy (DBT) which only family members can attend. It educates the family about BPD, helps family members manage their own negative reactions and offers social support. It is led by family members and typically runs weekly for 12 weeks. FC is a promising intervention and is available in the USA, Canada and several European countries. Participants report significant reductions in their subjective burden, objective burden, grief and depression with significant improvements in empowerment and mastery (Hoffman et al., 2005; Hoffman, Fruzzetti, & Buteau, 2007). Further research is needed to determine whether all components are

contributing to positive outcomes or if there is a differential contribution (Hoffman et al., 2005).

Another promising intervention for the relatives and friends of people with BPD is Dialectical Behavioural Therapy – Family Skills Training (DBT-FST) (Hoffman, Fruzzetti, & Swenson, 1999). It has four main goals; first to educate family members about BPD, second to teach family members new intra-family communication that targets creating and maintaining a mutually validating environment, third to help family members become less judgmental toward each other (this involves accepting the tenet that there is ‘no one right answer’ and learning core mindfulness skills) and fourth to provide a safe forum where clients and family members can have discussions about intense issues such as self-destructive behaviours, feelings of rejection, anger, sadness, or suicide thoughts or attempts. The program usually runs over 6 months during which time 6-9 families meet for 90 minutes on a weekly basis. Unfortunately, many people with friends, relatives and partners who have BPD are unwilling or unable to commit or maintain their attendance for this long. FPE, FC and DBT-FST are all run over many weeks and this may mean that many of the people that most need help do not attend these programmes.

### **Developing a new intervention for friends, family and partners**

FC and DBT-FST have reported some success in improving outcomes for their attendees but the actual mechanisms of change are not known. It may be that the DBT skills training that the participants receive is what makes the difference. This would be advantageous as basic DBT skills could be taught in a single session or workshop thus improving outcomes more quickly and making it feasible for more people to receive the intervention.



A shorter programme may help increase the number of people who agree to attend and give people with limited resources a realistic opportunity to access help. There is evidence to suggest that very brief interventions such as a one day workshop can be effective. Brown et al (2008) found that a one day CBT workshop on self-confidence for groups of 25 people improved depression, anxiety, distress and self-esteem at 3 months and two year follow up. There is also evidence that less than 10 hours of CBT skills building workshops for family members of people with dementia can lead to a significant reduction in depressive symptoms, increased use of adaptive coping strategies and a trend towards less negative coping strategies (Gallagher-Thompson et al., 2000, 2003).

This study proposes that a brief DBT skills workshop for friends, family and partners of people with BPD may be effective in improving their relationships. DBT and its component skills are described below and then a rationale is given for its use with friends, partners and relatives of people with BPD.

### **Dialectic Behavioural Therapy (DBT)**

DBT is based on the transactional bio-psychology theory of the aetiology of BPD (Linehan, 1993). It aims to comprehensively address the deficits in capability and motivation that have been caused by biological emotional vulnerability and systematic invalidation of people's inner experiences.

DBT has been evaluated and found to be efficacious for the treatment of BPD in a number of well-controlled randomized clinical trials (RCTs) (Comtois, Elwood, Holdcraft, Smith, & Simpson, 2007; Koons et al., 2001; Linehan, Armstrong, Suarez, Alimón, & Heard, 1991; Turner, 2000; Verheul et al., 2003). Across studies DBT has resulted in reductions in several problems associated with BPD including

self-injurious behaviour, suicide attempts, suicidal ideation, hopelessness, depression, and bulimic behaviour (Robins & Chapman, 2004).

The mechanism by which DBT facilitates change has been examined by Lynch and colleagues (Lynch, Chapman, Rosenthal, Kuo, & Linehan, 2006). They distilled the mechanism down to the reduction of ineffective action tendencies (such as self-harm, suicide attempts, aggression and isolation) linked with dysregulated emotions. Components of DBT that are likely to contribute towards this process of change include validation from the therapist, a high degree of therapist self-disclosure and reinforcement of functional behaviours. However, skills training is intended to have the greatest effect on emotional dysregulation. Soler et al. (2009) found that DBT skills training is significantly more effective than standard group therapy for people with BPD. Neacsiu et al. (2010) found that practicing DBT skills more often is associated with better outcomes in DBT therapy.

The key components of DBT skills training are emotion regulation, mindfulness, distress tolerance and interpersonal effectiveness. A description of these skills and the difficulties that people with BPD have with them are given below. Understanding the deficits and difficulties that people with BPD face is helpful when considering their relationships with others because they are likely to have to face the difficulties and consequences of BPD together.

### **Emotion Regulation**

Emotional dysregulation is defined as maladaptive responses to emotional distress; including reduced awareness and acceptance of emotions, an inability to modulate the intensity and duration of emotions, inability to tolerate emotional distress and inability to control one's behavioural response to distress (Gratz & Roemer, 2004). There is a body of evidence that supports the theory that emotional

dysregulation is fundamental to the development of BPD. It has been found that people with BPD experience more intense emotions and a greater number of changes in their emotional state over time (Levine, Marziali, & Hood, 1997). They are also more sensitive to low intensity emotional expression, suggesting they may be more sensitive to emotional stimuli and therefore more likely to react excessively in emotion-related situations (Lynch et al., 2006). People with more emotional dysregulation display more of the symptoms used to diagnose BPD (Yen, Zlotnick, & Costello, 2002). They are also more likely to engage in avoidance in response to stressors (Bijttebier & Vertommen, 1999) and unwanted internal experiences (e.g. Rosenthal, Cheavens, Lejuez, & Lynch, 2005). In addition, Linehan's (1993) suggestion that deliberate self-harm is a common symptom of BPD because it is used to regulate emotion has received empirical support (Briere & Gil, 1998; Gratz, 2003) and there is evidence to suggest that violence toward others may also function to regulate emotions (Bushman, Baumeister, & Phillips, 2001).

The inclusion of didactic instruction in a wide range of emotion regulation skills is unique to DBT and may go some way to explaining its efficacy. The emotion regulation teaching includes learning to identify, label and describe emotions, using mindfulness on emotion experience, reducing vulnerability to negative emotions, increasing the occurrence of positive emotions and acting in an opposite manner to motivational tendency associated with negative emotion.

Acting in an opposite manner, or opposite action, is one of the most central emotion regulation skills. Essentially it involves learning to (1) determine that an emotion is not warranted by the situation or that it interferes with effective behaviour, (2) being able to experience an emotionally evocative stimulus, whilst

blocking the behaviour prompted by the emotion and (3) engaging in a behaviour to induce an alternative emotion.

### **Mindfulness**

Mindfulness is a mental state in which one is attentive, aware and accepting of the present moment, without becoming over-involved in cognitive or emotional reactions (Kabat-Zinn, 1982). Mindfulness helps patients (1) increase their conscious control over attentional processes, (2) achieve a 'wise' integration of emotional and rational thinking and (3) experience a sense of unity or oneness with themselves, others, and the universe.

Mindful practice has been incorporated into a variety of treatment approaches (e.g. Kabat-Zinn, 1991; Marlatt, 2003; Segal et al., 2002) and has garnered empirical support (for a review, see Baer, 2003). However, the manner in which mindfulness is conceptualized and implemented in DBT distinguishes it from other approaches. Unique to DBT, Linehan (1993) has distilled the practice of mindfulness into several discrete behavioural skills; observing, describing and participating fully in one's actions and experiences whilst attending to just one thing at a time, with a focus on effective behaviour. Mindful practice in DBT also involves radically and non-judgementally accepting a current situation, thought, emotion or experience.

Mindfulness is an important element of DBT because there is evidence that symptoms of BPD occur more often and more intensely when an individual has poorer mindfulness skills and mindfulness continues to predict BPD symptoms even when emotion regulation, neuroticism and interpersonal effectiveness are controlled for (Wupperman, Neumann, & Axelrod, 2008). This may be because mindfulness decreases their tendency to avoid awareness of unpleasant emotions, sensations and thoughts (Rosenthal et al., 2005). By reducing defensive avoidance and facilitating

emotional processing, attention to emotion is increased and this fosters habituation to formerly aversive experiences so that experiences become less intense and more tolerable (Teasdale, Segal, & Williams, 1995). Mindfulness also fosters decentring or the ability to step back mentally from automatic judgments and impulsive reactions (Teasdale et al., 2002). This allows mindfulness to function as an internal context for the acquisition of different emotional and behavioural responses (Lynch et al., 2006).

### **Interpersonal Effectiveness & Distress Tolerance**

The current study was conducted jointly with Young (2012) who focussed on the effect of the DBT skills group on interpersonal effectiveness and distress tolerance skills. Consequently, they are mentioned only briefly here.

In recognition of the significant problems that people with BPD have with interpersonal relationships DBT offers direct, practical didactic teaching of interpersonal effectiveness skills such as interpersonal problem solving and assertion.

The skills taught in the distress tolerance component of DBT focus on acceptance of painful emotions without trying to change them. This is because people with BPD often respond to distress in ways that result in further harm to themselves or others.

### **DBT skills training for friends, family and partners**

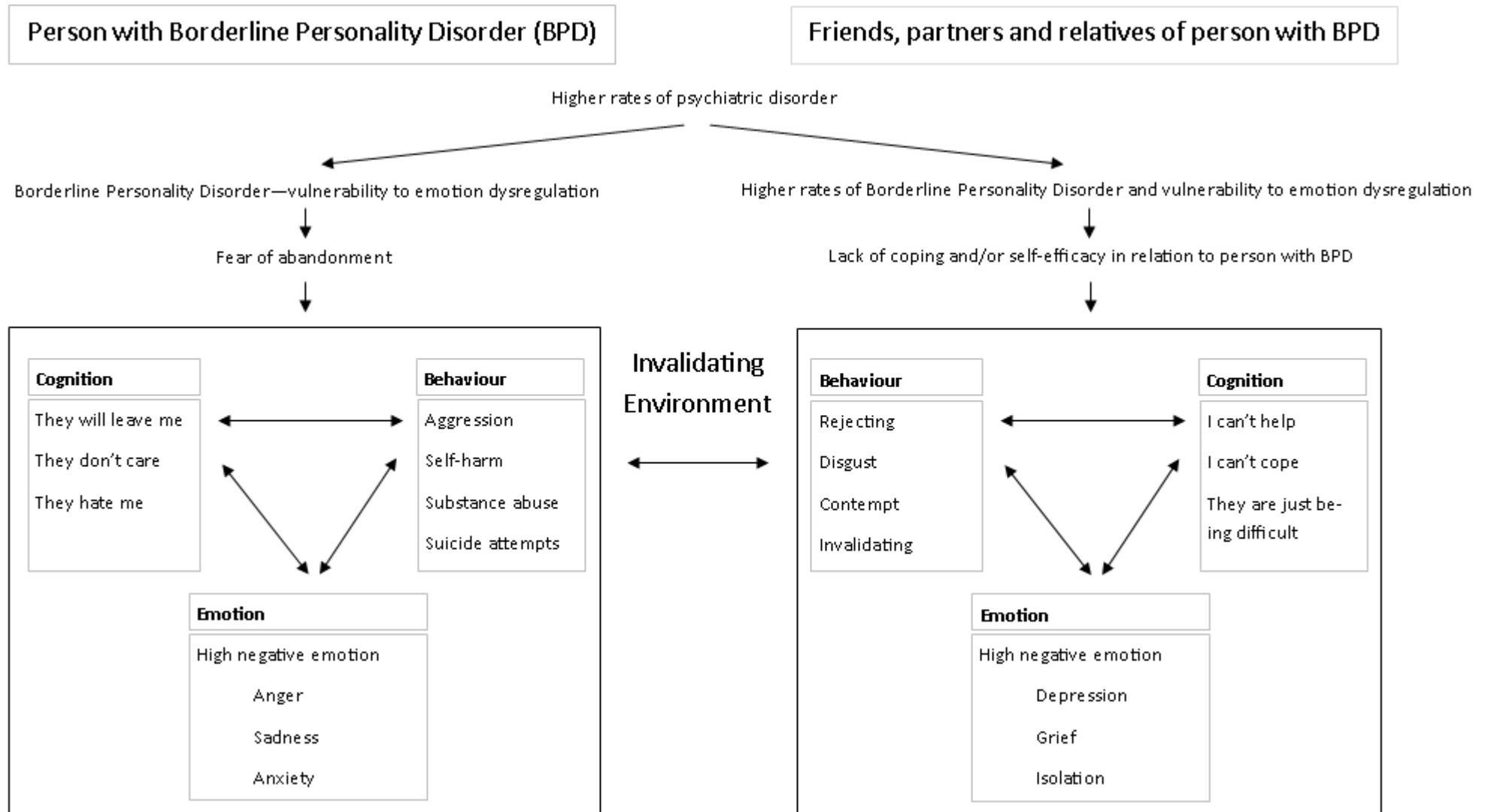
DBT, as it is usually practised, targets an individual's emotional vulnerability and consequent behaviours. It makes no attempt to directly affect the invalidating environment which, according to the transactional model of BPD (Fruzzetti et al., 2005; Linehan, 1993), is fundamental to the development and maintenance of BPD.

The DBT skills workshop for friends and family aims to improve the validating qualities of the environment and break the cycle of emotional dysregulation and invalidation. The cycle and the components that may influence it are described in more detail below and are depicted in Figure 1.

DBT skills training may improve friends and family members' ability to cope with the high emotions and challenging situations that are more likely in a relationship with someone with BPD. Many people with BPD report having distressing interactions in their relationships (Stepp, Pilkonis, Yaggi, Morse, & Feske, 2009). Up to 73% of those diagnosed with BPD have made at least one suicide attempt and on average they will make 3.4 attempts in their lifetime (Soloff, Lynch, Kelly, Malone, & Mann, 2000). Most people's emotion regulation skills would be strained by the extreme and distressing behaviours that people with BPD tend to engage in. Stress from having a relative with a mental illness is known to be associated with burden, grief and isolation (Greenberg, Seltzer, & Greenley, 1993; Seltzer, Greenberg, Floyd, Pettee, & Hong, 2001). It is, therefore, not surprising that friends, relatives and partners often report feeling too traumatised and disempowered to be of help to their ill relatives (Hoffman et al., 2007).

The stress-coping and-adaptation (SCA) model (Folkman, Lazarus, Gruen, & DeLongis, 1986) states that unless people perceive themselves to have the strengths, resources and adaptive capacities to cope with major life events and challenges they will experience stress and engage in more avoidant or unhelpful behaviours. Here, coping refers to both problem-focussed and emotion-focussed coping (regulating emotion). Teaching DBT skills to friends, partners and relatives of people with BPD

Figure 1: DBT skills target the cycle of invalidating interactions between the person with BPD and their friends, partner and relatives



directly addresses their ability and perceived ability to cope using emotion and problem focussed approaches. The resultant reduction in stress and increased knowledge of DBT skills gives friends and family an alternative way of responding and means they are more likely to be validating or positively reinforce desirable behaviour.

Increasing the ability of friends and relatives to manage difficult situations and emotions may also be extremely important for the person with BPD because it reduces the chance that the relationship will end or that contact between them will be significantly reduced. Individuals with BPD often exhibit a preoccupied type of insecure attachment (Fonagy, Target, & Gergely, 2000). They demonstrate a longing for intimacy and at the same time concern about dependency and rejection (Agrawal, Gunderson, Holmes, & Lyons-Ruth, 2004). Their fear of abandonment makes them extremely sensitive to rejection and if they believe they are about to be rejected they can engage in some very unhelpful behaviours, such as self-harm and attempted suicide, that, in the long term, are more likely to alienate the other person. If their friend or relative is better able to cope with high emotions or difficult situations as a result of their DBT skills training then they are less likely to avoid the person with BPD, giving the person with BPD less reason to engage in unhelpful behaviours.

The person with a diagnosis of BPD may also gain from their friends and family being trained in DBT skills because they can work together to implement the skills in their everyday interactions and this may reduce the likelihood of conflict or other difficulties. Working together in this manner could also help generalise learning from individual DBT therapy to the context of friends and family. The potential for encouraging generalisation by teaching friends and family DBT skills fits well with the aims of individual DBT for people with BPD. Linehan (1993)



states that DBT is intended to serve five main functions of which one is assuring that new capabilities generalises to the natural environment. Training friends and family in DBT skills may, therefore, provide another mode by which this generalisation can occur.

Teaching DBT skills to the friends and family of people with BPD may also be important because the friends and family tend to have much higher levels of personality and psychiatric disorders (White, Gunderson, Angermeyer, & Hudson, 2003). White et al.'s (2003) review found a prevalence rate for BPD in relatives of people with BPD ranged from 0.8% to 24.9% suggesting a 4 to 20 fold increase compared to the general population. Prevalence of mood disorders ranged from 6.2% to 50% in relatives of people with BPD compared to 17% prevalence rate in the general population and substance use ranged from 0.8% to 20.4% compared to 4.4% in the general population. The studies reviewed suffered from a number of methodological issues which make accurate estimate of the prevalence rates difficult but they strongly suggest that a significant proportion of the relatives of people with BPD may have many of the same difficulties with emotion regulation and mindfulness as those who have BPD. DBT skills training is, therefore, likely to help friends and relatives regulate their emotions and behave in ways that leads to a more validating environment in the same way that DBT helps people with a diagnosis of BPD.

### **Rationale for this feasibility study**

A one day DBT skills workshop had been informally developed and implemented within a NHS specialist personality disorder service as a result of requests from some of the clients with a diagnosis of BPD and their friends and family. The workshop that was delivered had, according to the subjective judgement

of the facilitator, been received positively. The intervention looked promising but the exact contents of the workshop, the process of recruitment, whether there was sufficient demand for a workshop in this format and the methods to measure its outcome had yet to be determined. The current feasibility study was planned because it is the most appropriate way of answering these questions and determining whether conducting a trial to test the effectiveness of the intervention is justified (Thabane et al., 2010).

### **Aims and objectives**

This study investigates the feasibility of a one day DBT workshop for relatives, friends and partners of people with a diagnosis of BPD. The primary outcome hypothesis is that participants attending a DBT skills workshop will show improved emotion regulation and mindfulness skills one month after the workshop.

The secondary outcome hypothesis is that clients will find the relationship between themselves and their relatives, friends or partners more validating one month after the workshop.

This study also aims to consider the feasibility of the workshop by looking at recruitment and retention rates, qualitative feedback from participants, and evaluation of the appropriateness of the measures of outcome selected.

## **Method**

### **Study design**

This was a joint study to determine the feasibility of a one day DBT skills. Young (2012) will be investigating two of the four core DBT skills, interpersonal effectiveness and distress tolerance, whilst the current study will examine emotion regulation and mindfulness skills.

A single group, repeated measures design was used to test the primary outcome hypothesis; whether there was a change in emotion regulation or mindfulness skills one month after the workshop. A single cohort pre-post design was used to test the secondary outcome hypothesis; whether clients with BPD will find the relationship between themselves and their friends, relatives or partners more validating after the workshop. The feasibility of the design was addressed in part through interviews with the participants one month after the workshop and through analysis of recruitment and retention rates.

### **Participants**

Eighteen clients with a diagnosis of BPD from a specialist personality disorder service in North London nominated friends, partners or relatives who agreed to attend one of three one day DBT skills workshops. Twenty two people (8 male, 14 female) attended one of the workshops. Four people stated they were friends, eight were partners, two were parents, six were children and two had another unspecified relationship with a client. Most people (68%) said they had more than 21 hours per week of contact with a client, 23% had less than 5 hours of contact, whilst 9% said they had between 6 and 20 hours contact. Of those who attended the workshop 36% were between 18 and 34 years old, 55% were between 34 and 55 and 9% were older than 55. White British people accounted for 77% of the group while 23% were Black or Asian.

### **Power**

A power calculation (using G\*Power 3.1, Faul, Erdfelder, Lang, & Buchner, 2007) suggested a minimum sample size of 29 based on a medium effect size with a power of 0.8 at an alpha of .05 (Cohen, 1992).

## **Outcome measures**

### ***Emotion Regulation***

The Difficulties in Emotion Regulation Scale (DERS) (Gratz & Roemer, 2004) was used to measure participants' emotion regulation (see scale in Appendix A). The DERS is a 36 item self-report measure which requires the participants to state how often the items apply to themselves using a 5 point Likert scale. A higher score in the DERS indicates greater difficulty in emotion regulation.

Gratz and Roemer (2004) reported an internal consistency of .93, test-retest reliability of .88 during a 4- to 8-week interval, and a clear factor structure. Evidence for the measure's validity has been demonstrated through its significant correlations with several criterion variables, including experiential avoidance and self-harm.

### ***Mindfulness***

The Philadelphia Mindfulness Scale (PHLMS) (Cardaciotto, Herbert, Forman, Moitra, & Farrow, 2008) was used to measure participants' mindfulness (see scale in Appendix A). The PHLMS is a self-report measure which takes about five minutes to complete and consists of 20 items that require the participants to state how often the items apply to themselves using a 5 point Likert scale. Higher scores on the PHLMS indicate stronger mindfulness skills.

The PHLMS was developed with several clinical and nonclinical samples. Good internal consistency has been demonstrated for the subscales (.85 and .87), correlations with other constructs were significant in the expected directions (e.g 0.4 with the Mindful Attention Awareness Scale (MAAS) (Brown & Ryan, 2003), -.35 with the Beck Depression Inventory -II and -.33 with the Beck Anxiety Index .72), and clinical samples generally had lower scores than nonclinical samples.

### *Invalidating environment scale*

The Invalidating Environment in Childhood Scale by Mountford, Corstorphine, Tomlinson and Waller (2007) was adapted for this study by an experienced DBT clinician (see scale in Appendix B). It was piloted on ten clients with a diagnosis of BPD who said that it was readable and the questions were relevant to them but its psychometric properties have not yet been determined. It is a self-report measure for the person with BPD that aims to measure the invalidating environment between the person with BPD and their friend, relative or partner. It consists of 14 items on a likert scale (1=never, 5=all the time) reflecting the eight themes used to define an invalidating environment; ignoring thoughts and judgements; ignoring emotions; negating thoughts and judgement; negating emotions; over reacting to emotions; over estimating problem solving; over-react to thoughts and judgements and over-simplifying problems (Linehan, 1993). The measure does not include subscales for each of the themes as it aims to measure the overall construct of invalidation. Higher scores reflect a greater perception of invalidation by the other person.

### *Semi-structured interview*

A semi-structured interview was developed by the research team (see Appendix C). It includes eight open ended questions asking about the participants' overall experience of the workshop, their implementation of the skills and the perceived impact of the workshop. Participants were also asked to rate their overall satisfaction with the workshop on a 5 point Likert scale from very dissatisfied (1) to very satisfied (5) and their understanding of each set of skills following the workshop on a 4 point Likert scale ranging from not at all (1) to a lot more (4).

**Procedure**

An NHS Research Ethics Committee granted approval for this study (see Appendix D). Clients at the personality service were introduced to the workshop by their therapists. The researchers telephoned the clients who consented to being contacted and asked them to recommend friends, relatives or partners who might attend a one day DBT skills workshop. With the client's consent the researchers then called the potential workshop participants to explain the study and invite them to attend. Informed consent was obtained verbally and in writing from both clients and friends and relatives.

**Intervention: DBT Skills Workshop**

Three DBT skills workshops were run as part of the study. Two workshops were run during the week and one was run on a Saturday. They began at 10am and finished at 5pm with a 45 minute lunch break and two 15 minute coffee breaks.

In the first workshop participants were given a folder with selected worksheets from the Linehan (1993) manual which explained the DBT skills. They were encouraged to visit a number of websites or purchase the Linehan (1993) DBT skills manual for additional information. Feedback from this workshop suggested that the worksheets and presentation needed to be simpler to understand and more focussed. Consequently, skills sheets from Linehan's (1993) manual were reformatted, given written explanations and bound into a booklet that was given to the participants at the beginning of the second and third workshops (see Appendix E). It was intended to provide a simple structure to follow during the workshop and an easy reference manual after the session. The order in which the DBT skills are presented was also changed after the first workshop so that the skills that participants seemed to find easier to understand were discussed first. Distress Tolerance skills were discussed

first followed by Emotion Regulation, Mindfulness and then Interpersonal Effectiveness. The workshops were designed to be highly experiential and encouraged discussion of obstacles that might impede implementation of the skills.

### **Assessments and follow up**

#### ***Baseline – 1 month before the workshop***

Baseline measures were taken one month before the workshop. Potential participants were sent an information sheet and cover letter inviting them to complete a demographics sheet, the PHLMS, the DERS and sign a consent sheet. They also completed measures relating to distress tolerance and interpersonal effectiveness (which have been analysed in a separate thesis by Young, 2012). If the questionnaires were not returned after an appropriate amount of time one of the researchers telephoned the potential participants and asked whether they would like any help to complete the questionnaires over the phone or in person.

Prior to the workshop the Invalidating Environment Questionnaire was administered over the telephone with the person with a diagnosis of BPD.

#### ***Immediately before workshop***

On arrival at the workshop venue each participant was given a set of questionnaires labelled with their unique participant number and asked to complete them before the workshop began. A member of the research team was present to answer any questions.

#### ***1 month follow up***

One month after the workshop the researchers met with each of the participants to complete a final set of questionnaires and conduct a semi structured interview to obtain feedback about the workshop (see Appendix C). The participants were also

asked to rate their overall satisfaction with the workshop on a 5 point Likert scale ranging from very dissatisfied to very satisfied. They were also asked whether they thought their understanding of the emotion regulation and mindfulness skills had improved. The participants were given £15 to compensate them for their time.

The Invalidating Environment Questionnaire was also administered for the second time, one month after the workshop, over the telephone with the person with a diagnosis of BPD.

### **Analysis**

Statistical analysis will be conducted using the Statistical Package for the Social Sciences Version 20 (SPSS). Missing data will be imputed using the expectation maximisation algorithm (Dempster, Laird, & Rubin, 1977). It is an iterative method for finding maximum likelihood or maximum a posteriori estimates of parameters in statistical models.

The emotion regulation, mindfulness and invalidating environment total scale scores will be tested to see if they meet parametric assumptions and transformations will be attempted if the variables are not normally distributed.

If parametric assumptions are met, repeated measures ANOVAs will be used to test whether the mindfulness and emotion regulation skills of people attending the DBT skills workshops changed between three time points; a month prior, immediately before and one month after the workshop. If parametric assumptions are not met the non-parametric equivalent of a repeated measures ANOVA will be used; a Friedman's ANOVA.

To test whether clients found the relationship between themselves and their friends, relatives or partners had become more validating one month after the



workshop a paired t-test will be used if parametric assumptions are met. If parametric assumptions are not met a Wilcoxon signed ranks test will be conducted.

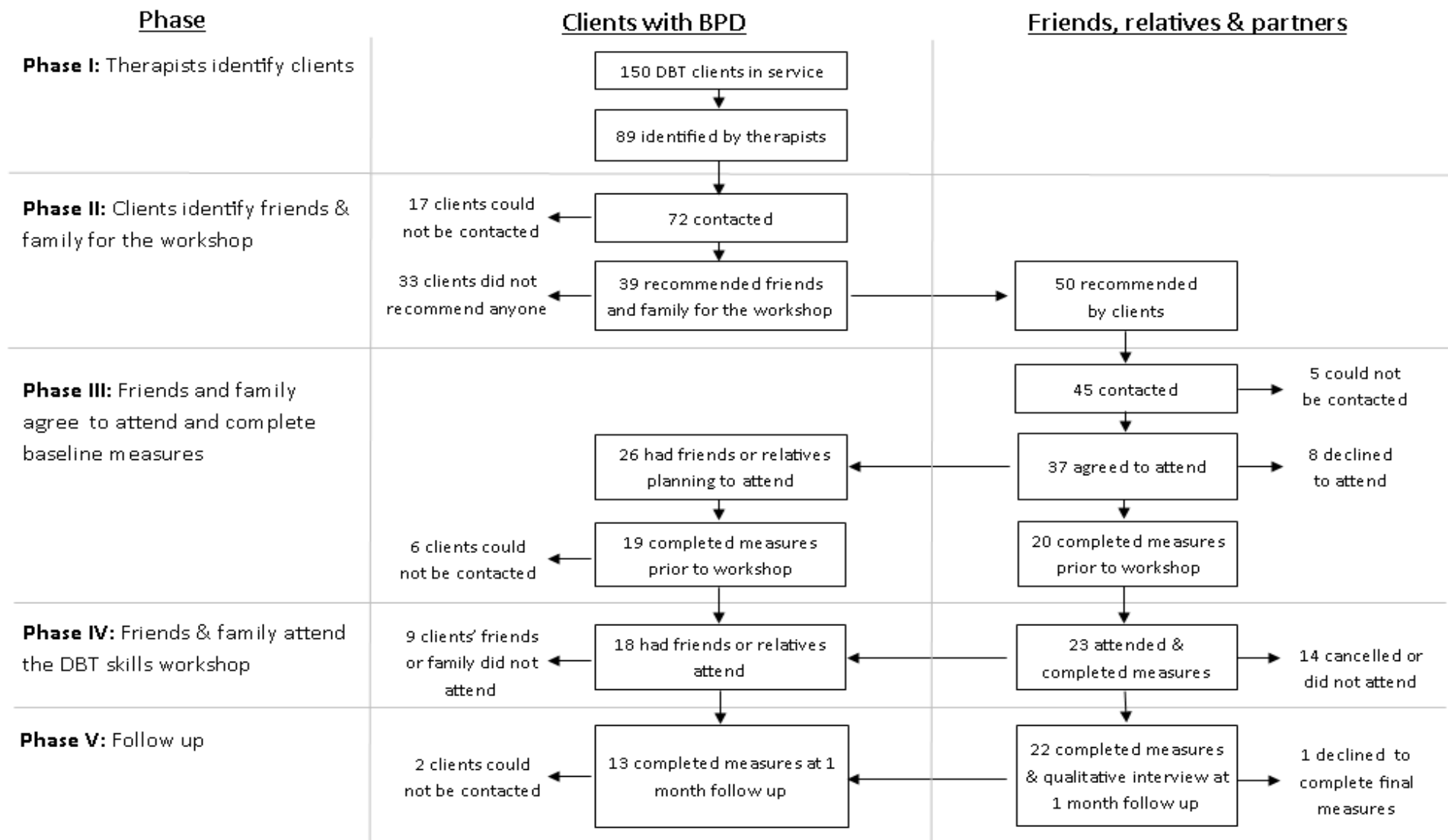
To gain a greater understanding of workshop participants' opinion of the workshop and explore the impact of the workshop on them and the person with a diagnosis of BPD a thematic analysis will be conducted on the semi-structured interviews conducted at one month follow up using the process recommended by Braun and Clarke (2006).

## **Results**

### **Recruitment and attrition**

There were five main phases to the recruitment process. Figure 2 describes the flow of participants into and out of the study. The study ran over a 6 month period during which time the service we recruited from had approximately 150 clients with BPD who were engaged in DBT. In the first phase of recruitment, the therapists spoke to their clients about the workshop and, if the client consented, gave us the contact details of clients who wished to know more about the study. The therapists identified 89 clients for the second phase of the recruitment process in which we asked the clients to take part in the study and to refer their friends, relatives or partners. Many of the clients (24%) could not be contacted despite repeated attempts and a large proportion of those who were contacted (46%) stated that they had nobody to invite or did not wish to invite anyone to the workshop. Fifty friends, partners or relatives were put forward by 39 clients for the third phase of the recruitment process in which we contacted the friends and family and asked them to attend. Thirty seven friends and family members agreed to attend a workshop but only 23 attended as there was a considerable drop-out rate from the workshops with

Figure 2: Recruitment and attrition flowchart for clients with BPD and their friends, family & partners



14 people (38%) cancelling or not attending. Three participants went to the wrong location, three said unforeseen circumstances prevented them from attending, two cited a family emergency, two participants stated they were sick, one could not attend as the client with BPD withdrew their consent and the remaining three did not give a reason. All but one of the participants completed follow up measures a month after the workshop. They stated that they would not attend the follow up due to dissatisfaction with the local personality disorder service. Their data has therefore been excluded from the subsequent analysis.

### **Intervention outcomes**

Table 2 shows the descriptive statistics relating to the primary outcome hypotheses. There was no change in mindfulness skills as a result of the workshop (Wilks' Lambda=0.90,  $F(2,20)=1.11, p=.35$ ). Emotion regulation skills also remained unchanged ( $\chi^2(2)=1.00, p=.607$ ).

*Table 2: Mindfulness and emotion regulation skills before, during and after a one day DBT skills workshop*

Measurement interval	Mindfulness Mean (STD)	Emotion regulation Median (int. range)
1 month prior to workshop	3.29 (0.43)	2.07 (0.68)
Immediately before workshop	3.21 (0.56)	2.07 (0.95)
1 month after workshop	3.28 (0.52)	2.01 (1.00)

*Note: Scores are based on average 5 point Likert Scale scores where 1 is very low and 5 is very high. A higher score for emotion regulation indicates greater difficulty in emotion regulation. Higher scores for mindfulness indicate stronger mindfulness skills.*

A post hoc calculation to compute the achieved power (using G\*Power 3.1, Faul et al., 2007) for the mindfulness and emotion regulation effects found that with a sample size of 22 and an alpha of 0.05 the study could detect a medium effect size with a power of 68% (Cohen, 1992). There is, therefore, a relatively high risk of

false negative result (type 2 error); if the study were repeated ten times it is likely that a positive result would be missed three times.

The study found there was a significant difference between the perceived invalidating environment before (Median=1.93, Interquartile range=1.29) and one month after (Median=1.64, Interquartile range=0.82) the workshop ( $z = -2.27$ ,  $p=.023$ ). This suggests that clients found the relationship between themselves and their relatives, friends or partners more validating one month after the workshop.

Another post hoc calculation to compute the achieved power (using G\*Power 3.1, Faul et al., 2007) of the invalidating environment effect found that with a sample size of 17 and an alpha of 0.05 the study could detect a medium effect size with a power of 61% (Cohen, 1992).

### **Satisfaction**

All of the participants in the study rated the workshop as satisfactory with 50% of the participants rating their overall experience as very satisfactory. Mean ratings for overall experience and the degree to which participants felt that their understanding of mindfulness and emotion regulation skills improved are presented in Table 3. A number of the participants commented that they found it difficult to distinguish between the different skills modules.

*Table 3: Participants' rating of their understanding of DBT skills*

	Mean	STD
Overall satisfaction	4.50	0.51
Understanding of mindfulness	3.36	0.90
Understanding of emotion regulation	3.00	0.93

*Note: Scores based on a 5 point Likert Scale where 1 is very low and 5 is very high*

### Qualitative feedback

Themes generated inductively based on the data from semi-structured interviews were divided into four larger domains; barriers to attendance, impact of the workshop, impact limitations and suggestions for future workshops. They are presented in the table below.

*Table 4: Domains and themes from feedback interviews with workshop participants at one month follow up*

Domain	Themes	n
Barriers to attendance	Initial anxiety	3
	Stigma of the venue	2
	Reservations from person with BPD	1
Workshop impact	Increased awareness, understanding and acceptance	17
	Motivation for further learning	17
	Increase in validating interactions	14
	Social support and not feeling alone	13
	Using the DBT skills	13
	Becoming calmer	10
	Increased confidence and mastery	8
	Passing skills and knowledge onto others	7
	Taking personal responsibility for change	4
	Showing commitment to the person with BPD	3
Impact limitations	Overwhelmed by quantity of new information	14
	Person with BPD unreceptive	7
	Practical difficulties	4
	Unable to use the skills in the moment	3
Suggestions for future workshops	One-to-one support	7
	Focus on attendee vs person with BPD	4
	Specific advice on what to do and say	3
	On-going support	3
	Split the workshop over two or more days	2
	Timing: offer workshop when BPD enters treatment	2

*Note: n = number of participants that the theme pertains to.*

The analysis yielded 23 core themes, grouped into four broad domains. Some of the key themes are presented and illustrated below by excerpts from the interviews. Ellipses ( . . . ) indicate omitted material, edited for brevity.

The key theme that emerged from the interviews was an increased understanding and acceptance of the person with BPD:

*“It opened my eyes a lot to be honest with you – I see people like this day in and day out as part of being a [job] – thought they were just out to cause mischief and all ‘gobby’ – but in fact they do have issues” (P38)*

This included a new appreciation of the work they were doing in therapy:

*“It opened up my mind. I can see the other side of it ... how hard she is working” (P21)*

A major theme for the majority of the workshop participants was that the workshop had led to them having more validating interactions with the person with a diagnosis of BPD:

*“Before if I didn’t communicate right there was an argument but now I am trying to realise how I’m feeling and how I’m saying things which has been really helpful. I realise I’m getting worked up and stop, breathe deeply and calmly, stop thoughts, take a step back and work out my own thoughts and feelings. I don’t say the first thing that comes into my mind I consider what I really want to say and work out if the words match my feelings. The problems are still there but now the time we need to get over is much quicker ... maybe a sixth” (P41)*

A large proportion of the participants said they found meeting other people who had a relationship with someone with BPD really helpful:

*“It was good to meet other people who had friends and family with PD (...) at first diagnosis I had never heard of it... I felt alone, now I have met people I feel better.” (P34)*

Many of the participants were using some of the skills for their own benefit:

*“On a personal note I liked the suggestion to do the opposite to the emotion – I’ve been compiling a database and I would normally have dropped it by now and avoided it but I am now going back to it.” (P4)*

Some were also using the skills with the person with BPD:

*“We do mindfulness together. She is doing a massage course so she is mindful doing the massage and I do mindfulness whilst she is massaging me. It feels like quality time together as I don’t see her that often now” (P9)*

A few participants said just going to the workshop had showed their commitment:

*“It was helpful that she knew I went the extra mile by going” (P40).*

Most participants said that the impact of the workshop was limited by the overwhelming amount of information that was presented over the day:

*“(…) too much in one day. In the last hour and a half I was getting very tired (…) there was too much to absorb” (P16).*

Others said it was too difficult to use the skills in the moment and that the person with BPD was unreceptive or they feared them being unreceptive if they attempted to use the skills or take a different approach:

*“I don’t want to patronise, we do it in the moment and don’t talk about it” (P28).*

This may be why some participants wanted on-going support or one-to-one support from the therapists:

*“A one-on-one session would be good so that we can get more personal advice to understand our everyday life with [name of person with BPD]” (P29).*

A minority of participants also wanted more specific advice on what to do and say to the person with BPD:

*“I would like advice on communication and words you could use (…) how do we help without being patronising? I would like more practical things to do - I would like to know more know on how to deal with situations” (P8).*

## **Discussion**

The 22 people who attended the workshop and completed follow up measures showed no improvement in their emotion regulation or mindfulness skills one month after the workshop. There are a number of possible explanations for their lack of improvement; the approach used to teach DBT skills in the workshop may have been ineffective, participants may need more than a day to learn DBT skills or a one

month follow up period may be insufficient time to practise and improve the skills. Alternatively, it may be that the study missed an effect because it was underpowered at 68% and it should, therefore, be regarded as finding ‘no evidence of effect’ rather than ‘evidence of no effect’ (Altman & Bland, 1995).

This study found that the workshop had a significant effect on the invalidating environment between people with BPD and their friends and family. The participants’ relationships with the clients who had put them forward were found to be less invalidating a month after the workshop. This was based on the report of 13 out of the 18 clients with BPD whose friends, relatives or partners had attended the workshop. Five clients could not be contacted to complete the measures.

The quantitative findings are consistent with findings from the qualitative feedback. The majority of the workshop participants described having more validating interactions and being able to remain calmer. The qualitative findings also offer some explanation for the lack of change in mindfulness and emotion regulation skills; the group was split between those who said they had practised the skills and those who had found the information about the skills interesting but had not gone on to use them. Linehan (1993) emphasises the need for practice in order to improve DBT skills and Neacsiu et al. (2010) found that practicing DBT skills more frequently is associated with better outcomes in DBT therapy.

The format of the workshop may have meant that some of the participants failed to sufficiently comprehend or absorb the skills. More than half of the workshop participants said they had been overwhelmed by the quantity of new information they had been given during the day. None of the participants we spoke to had a good conceptual understanding of the separate DBT skills as Linehan (1993) would have intended. This is perhaps not surprising given the teaching had been



compressed into a day. However, many seemed to have constructed their own way of understanding the skills. Although they used the wrong terminology and the concepts were sometimes distorted they valued their new knowledge and many felt it had been sufficient to change their behaviour. Some participants also found it difficult to implement the skills because they didn't know how to implement them in a crisis or when the person with BPD was unreceptive to their attempts to use the skills. Linehan (1993) countenances practicing DBT skills in easier situations and building up to more challenging occasions. This was discussed in the workshop but participants may lose motivation to persist with the skills if they have difficulty initially and are not offered continuing support (Dimeff et al., 2009).

The participants' qualitative feedback suggests a number of mechanisms, other than the improvement of DBT skills, by which the workshop may have improved the invalidating environment between clients and their friends and family. Many of these mechanisms are depicted in Figure 1. The majority of the participants said that it was their new understanding of the client, their difficulties and how much work they were doing in therapy which had made the difference. Hoffman (1999) found that a non-blaming understanding of the person with BPD and why they might engage in extremely risky behaviours is of central importance in improving the relationship with the person with BPD. Existing interventions for family member of people with BPD such as Dialectical Behavioural Therapy – Family Skills Training (DBT-FST) (Hoffman et al., 1999) and Family Connections Programme (FC) (Hoffman et al., 2005) include teaching about BPD as a fundamental part of the intervention but there has not been an investigation to determine whether teaching alone is sufficient to make a significant difference in the relationship between the person with BPD and their friends and family. In addition, a significant minority of the workshop

participants spoke about passing on the knowledge they had gained from the workshop to other people in their social network suggesting that there may be positive effects of the teaching that were not measured.

Group processes are also a fundamental part of existing family interventions (Hoffman et al., 2005, 1999) and most of the participants in the current study cited it as an important element. They said that they gained from the realisation that they were not alone and they valued the opportunity to speak to other people who have similar difficulties. This suggests that the workshop might alleviate some of the burden, grief and isolation that is more common if a person has a relative with a mental illness (Greenberg et al., 1993; Seltzer et al., 2001). Workshop attendees also said they gained reassurance that they were 'doing the right things'. The stress-coping and adaptation (SCA) model (Folkman et al., 1986) states that when people perceive themselves to have the strengths, resources and adaptive capacities to cope with major life events and challenges they will experience less stress and engage in more helpful behaviours (including more helpful interpersonal behaviours).

This feasibility study identified a poor uptake rate for the workshop. Only 22 participants attended the workshop despite it being open to the friends, partners and relatives of 150 clients attending a personality disorders service. There were a number of phases to the recruitment process (see Figure 2) and people who may otherwise have attended could have been lost at each of these stages. Comments made by clients during the recruitment process and by participants in the follow up interviews suggest that some clients may not have put their friends or family forward for the workshop because they feared that they would talk negatively about them at the workshop. It is possible that these fears were justified as people with BPD often have difficult interpersonal relationships (Gunderson, 2007) but people with BPD are

also more likely to perceive others negatively and predict that they will act to harm them (Arntz & Veen, 2001). A small minority of the workshop attendees said that they had been very anxious about coming to the workshop because they did not know what to expect and were worried about the stigma attached to coming to a mental health hospital. Stigma, particularly self-stigmatisation, can have a strong influence on people's behaviour (Thornicroft, 2006) and it is possible that other potential participants were reluctant to attend a workshop run by psychologists in a mental health hospital.

A strength of the recruitment process was that it demonstrated that only inviting family members, as is the tendency in existing interventions such as Dialectical Behavioural Therapy – Family Skills Training (DBT-FST) (Hoffman et al., 1999) and Family Connections Programme (FC) (Hoffman et al., 2005), may be overly restrictive. More than a quarter of the participants in the current study (27%) were friends or other acquaintances.

### **Limitations & future research**

One of the main weaknesses of this study is that it lacked a control group. This is a particular problem when determining the effectiveness of the workshop (Altman, 1996). Without a control group it is not possible to know whether the observed changes are a result of the workshop or other confounding factors. An improvement in the invalidating environment between the client and their friends or family members could conceivably be entirely attributable to the clients' own therapy. This is because the aim of DBT therapy is to improve the regulation of emotions and reduce dysfunctional coping behaviours such as self-harm, suicide attempts and aggression (Lynch et al., 2006) all of which increase the probability of invalidation from the social environment. Improving these factors may, therefore, improve the

invalidating environment regardless of whether friends and family also make changes. A randomised controlled trial in which clients whose friends, family or partners have attended the DBT skills workshop are compared with clients whose friends and family remain on a waiting list would help determine whether the workshop is having an effect. It would also allow an estimate of the size of this effect to be made.

A randomised controlled trial may also help to determine whether the DBT skills workshop has an effect over and above that of a workshop which offers social support and a new understanding of the client and their difficulties. The personality disorders service, from which the participants were recruited, already runs such a workshop. The two hour evening workshop aims to teach clients' friends and family members about BPD and its consequences. The didactic teaching is supplemented with an hour for attendees to discuss their experiences in relation to BPD.

The study's relatively poor recruitment rate and high level of attrition mean that it is more likely to be affected by selection bias. The people who came to the study and the clients that invited them may be different from the people who did not come. One possibility is that they are more likely to be motivated and ready to change (Prince et al., 2003). This means that even if it were possible to get more people to attend the workshop they may not respond to it in the same way as the current participants. To be able to generalise the results to more of the people within the service the recruitment rate needs to be increased. To be able to generalise the results to the wider population of people with BPD future research needs to be conducted across multiple sites with a range of people who are representative of the population affected by BPD.

To improve the recruitment rate it would be helpful to have a researcher embedded within the organisation from which the study is trying to recruit. This is likely to be more effective because; the researcher could remind clinicians to talk to participants about the study (Foy et al., 2003), they can meet with clients when they come for therapy thus eliminating the difficulties we had with contacting clients over the telephone and meeting people face-to-face is known to increase recruitment rates (Sitzia & Wood, 1998).

Recruitment rates may also increase if the one day workshop was split into briefer sessions so that that the initial burden on the participants is reduced (Dumka, Garza, Roosa, & Stoerzinger, 1997). There is a risk that the workshop may then experience higher drop-out rates but most participants in the current study stated that attending the workshop motivated them to attend future workshops. Splitting the workshop may also improve skill learning because attendees will have the opportunity to consolidate new information and encourage them to practice skills between workshops. The workshop should also be in an easily accessible location which, to reduce problems with stigma, is not associated with mental health services.

However, the best way of increasing the recruitment rate, improving the workshop and determining the outcome measures may be to consult and collaborate with people who have BPD and their friends and family. Their personal experiences give them expertise (Faulkner & Thomas, 2002) that can guide the research process and help implement it more effectively. They may be better at communicating with and reassuring other clients during the recruitment process and, as Hoffman et al. (2005) demonstrated, people who have already attended the DBT skills workshop could be trained to be skilled co-facilitators. Their presence in the workshop may also act as a testimonial for the effectiveness of the skills which could be motivating

for the participants. Peer teaching has the added advantage of benefitting the person who is teaching as well as the person being taught (Topping, 2005).

The measures used in this study may have been a little restrictive and future studies may wish to consider using different measures to assess the outcomes of the workshop. The adapted version of the Invalidating Environment in Childhood Scale (Mountford et al., 2007) lacked psychometric evaluation and suffered from a floor effect. A more sensitive measure of the relationship between people with BPD and their friends and family might be developed by adapting the McGill Friendship Questionnaire - Friend's Functions (MFQ-FF) (Mendelson & Aboud, 1999) which measures six functions of friendship; stimulating companionship, help, intimacy, reliable alliance, emotional security and self-validation.

Additional measures may also be needed in order to investigate the mechanisms responsible for change in the perceived invalidating environment. Hoffman et al. (2005) used a number of different measures that overlap with the factors that we theorised may influence the invalidating environment (see Figure 1). If future studies used similar measures their results would be more easily comparable with Hoffman et al.'s (2005) outcomes. The measures include the Burden Assessment Scale (BAS-Subjective section; Reinhard, Gubman, Horwitz, & Minsky, 1994) used to assess subjective burden, the Mastery Scale (Dixon et al., 2001) used to assess the perception of coping, the Grief Scale (Struening et al., 1995) which focuses on the respondent's current feelings of grief and the Centre for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) which assesses depressive symptoms over the past week.

The durability of the effect we observed could also be investigated in a future study. The current study asked participants to complete the final set of measures one

month after the workshop. It may be that gains made at one month will be maintained but they could also dissipate or improve. Some of the participants mentioned that the person with BPD had responded very positively to them attending the workshop because they felt it showed their commitment but such an effect may only be temporary (Forgas, 1995). Alternatively, the effects of the workshop may grow over time as participants continue to implement what they learned. Future studies could consider administering follow up measures more than once and lengthening the period of time between the workshop and follow up in order to learn more about the durability of the effect.

### **Conclusions**

This study suggests that some people with BPD can benefit from their friends and family attending a one day DBT skills workshop. A larger scale study is feasible but modifications to the current protocol will be necessary. Using a randomised controlled design will help exclude alternative explanations for improvements to the invalidating environment, such as the person with BPD's individual therapy. Measuring other factors such as friends and family members' self-efficacy, coping, increased compassion for the person with BPD and feelings of isolation alongside the use of more sensitive measures of their relationship with the person with BPD could help guide improvements to the workshop that make it more efficient and more effective. It will be important to measure outcomes over a longer period to determine whether the benefits of the workshop are maintained over time.

Clinicians and the services they work for often have very limited resources. A one day DBT skills workshop could make a positive contribution to the well-being of people with BPD with relatively little investment of additional resources. This is a prospect which deserves further study.

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Part 3: Critical appraisal

This critical appraisal examines some possible responses to issues that arose during our research study in three main areas; recruitment, design of the workshop and measurement of outcome.

### **Recruitment**

Future studies would benefit from higher recruitment and lower attrition rates than we obtained in the feasibility study. Here we attempt to identify strategies to improve recruitment and retention in order to inform future studies.

We started by examining the recruitment methods used by the Family Connections Programme (FC; Hoffman et al., 2005) because they state that they were able to recruit with relative ease. However, they appear to have recruited from a very different population from our study. We recruited from an area which is known to have a very high level of deprivation (Department of Communities and Local Government, 2011) and from a personality disorders service which is part of the National Health Service (NHS) so treatment is free at the point of use. In contrast, 91% of the participants who attended Hoffman et al.'s (2005) workshops reported a yearly income of more than \$50,000USD and they are likely to be more invested in the person with BPD's treatment because the healthcare system in the USA means they may be contributing financially to their care. Hoffman et al. (2005) may also have achieved a higher response rate because they recruited from a charity and a website that offers support for people with BPD and their families. Using local charities and websites might increase the recruitment rate for future studies but studies that recruit from personality services may be of more practical use because the funding streams in the UK mean that workshops are more likely to be set up and run by personality services.

We also took guidance on recruitment methods from literature on the subject. In a systematic review of the recruitment strategies used in randomised controlled trials Foy et al. (2003) identified a number of important factors and approaches that can determine the recruitment rate. They found that the characteristics of the organisation from which the study is recruiting can have a significant impact. In particular, clinicians' lack of time can impede recruitment (Ross et al., 1999). This may be particularly relevant to the service we were recruiting from because a recent service reorganisation had led to the clinicians' caseloads being increased by a third and the team were geographically split into a number of different centres. Some studies have tried to compensate for the additional burden on clinicians and motivate them to recruit participants by offering financial incentives but a review found that this was rarely effective (Asch, Connor, Hamilton, & Fox, 2000). A more consistently effective way of changing clinicians' behaviour is to offer reminders or prompts to recruit to the study (Foy et al., 2003). The clinicians in this study were reminded about the study and, although nearly half of the eligible clients were not recommended for the study, the low referral rates may have been for a good clinical reason rather than because the clinicians neglected to speak to the clients. We may have obtained higher recruitment rates with the clients if their therapists had conducted the whole recruitment process but due to the high levels of demand on the clinicians' time this was not feasible and our recruitment procedure attempted to minimise their input. We asked only that they briefly talk to the client and inform us of who may be interested and consented to be contacted so that we could telephone them to give further information and invite them to attend.

A large proportion of the clients were lost to the study because we were unable to contact them over the telephone despite repeated attempts. If a researcher had

been embedded within the service it is likely that we would have had less difficulty contacting the clients because they would have been able to talk to the clients when they came for therapy. In addition, when recruitment takes place face-to-face the response rate is much higher than when it takes place over the telephone (Sitzia & Wood, 1998). It is also easier to explain complicated health based information face-to-face (Soet & Basch, 1997) which is important because uncertainty about the intervention can inhibit people from participating in treatment based studies (Ross et al., 1999).

Many of the clients we spoke to during the recruitment process expressed that they were anxious about recommending their friend, relative or partner for the workshop. Examples of what we were told include:

*“it’s a lot to ask”*

*“it’s embarrassing to ask them to spend a whole day on me”*

*“I don’t think they’d like it”*

Others said that feared what their friend, partner or relative might say about them in the workshop. We did not have the opportunity to explore the clients concerns in more depth. A future study could use interviews or focus groups to ask the clients whether they want their friends, family and partners to receive help, how they should receive help and what obstacles exist to their friends and family receiving help. These interviews or focus groups could be accompanied by similar interviews or focus groups for friends, family or partners. The findings can then be compared to determine where the groups may agree or disagree. A consultative approach such as this would help the researchers refine the workshop and guide the recruitment process. A subset of the people consulted may be interested in collaborating with the researchers so that the service users, who can be considered ‘experts by experience’ (Faulkner & Thomas, 2002), are involved in decision

making about the workshop and study design. Rose (2003) notes that users come to the research endeavour with a different perspective to professionals and are able to elucidate how services and treatments feel to service users 'from the inside'. They can provide fresh insights and so research done from this perspective should lead to services that are more acceptable to service users than many find them today.

In addition to refining the design of the workshop and recruitment process the service users may also be able to run the workshops and the recruitment process more effectively. Family Connections (Hoffman et al., 2005) used trained service users to run some of their workshops for family members with BPD and found this to be a very effective means of teaching and providing social support. Clients who have experienced their friends and family attending the workshop may be better able to alleviate new clients' worries and concerns about the process when recruiting (Pitt, Kilbride, Nothard, Welford, & Morrison, 2007) and the new clients may be further reassured if they know that the experienced clients will be involved in running the workshop. Another option is to invite the client to attend the workshop or a part of the workshop so that they can see for themselves what the workshop involves. Hoffman et al. (1999) found that 95% of the clients in their study chose to attend workshops that their family members attended and this helped maintain a collaborative approach between people with BPD and their friends and family.

Our study had less difficulty contacting and recruiting friends and family members to the study but a relatively high proportion (38%) of those who said they would attend cancelled. McFarlane et al. (2003) found that if family members perceive that training through family psycho-education includes expectations they will take on yet more care-giving responsibilities they are likely to disengage. However, our study found no evidence that this was an issue for the participants or

potential participants of the workshops. This may be because McFarlane et al. (2003) were commenting on family interventions for people with schizophrenia rather than BPD and the demands on friends and family may differ.

Family and friends in the current study tended to cite practical issues such as family emergencies, illness or other unforeseen circumstances as reasons why they could not attend. This is consistent with previous work with families of people with psychiatric disorders which suggests time commitment, transportation and competing demands on time and energy are common blocks to family involvement (Solomon, 1996). It may be that a high cancellation rate should be expected when working with this group. Their own situation and their relationship with the person with BPD means they are more likely to have life events (Jovev & Jackson, 2006) which could prevent them from dedicating a whole day to a workshop. Future studies may benefit from having a regular rolling program of workshops so that friends and family members have more opportunities to attend a workshop.

A further strategy to increase the likelihood of people attending a workshop is to reduce the perceived burden on the friends and family (Dumka et al., 1997). If the workshop was shorter and took place in a more convenient location (some of the participants in our study had to travel a long distance to attend the workshop) it might be easier for friends and family to attend and the cancellation rate may reduce. Most of the participants who attended one of our workshops asked if they could attend another workshop in the future suggesting that once a friend or family member has attended a workshop they may remain motivated to attend another.

Another factor that may have reduced the attendance rate at the workshops is the stigma of being associated with mental health services. We heard a number of comments and statements from friends and family that suggested that stigma may be

an issue. It is common to hide stigma orientated thoughts from others (Thornicroft, 2006) so more people than we were aware of may be affected. One of the participants commented on the venue saying:

*“I’ve been up there a few times, had some nasty experiences...thought, oh my God, what are we doing here?” (P39)*

A relatively simple solution to this particular concern would be to run the workshop in a location that is not associated with a mental health service. We were only able to do this for one of the three workshops because of the higher expenditure it involved but participants seemed to prefer the location. Addressing stigma relating to the notion of attending a workshop run by psychologists is more challenging. The partner of a client told us:

*“Nah mate, I don’t need therapy, she does.” (partner recommended by client for the workshop)*

As we previously discussed, one option is to have friends and family members collaborate in running the study, including the recruitment phase and the workshop. They may find it easier to explain the benefits to potential participants and address the stigma by normalising mental health issues because of their own experiences.

### **Design and implementation of the workshop**

People who attended the workshop generally regarded it positively. The participants who were apprehensive about the workshop prior to it beginning said that their anxiety quickly dissipated:

*“I was pretty nervous at the beginning (...) I wasn’t sure what to expect (...) but once we got into it, it felt better.” (P21)*

A large proportion of the attendees said they appreciated the informal nature of the workshop and this made it easier for them to discuss the issues.

*“I liked the way it was like a conversation, just chatting and eating snacks but learning a lot, it made us feel comfortable talking about emotions” (P29)*



The workshop seems to have achieved its aim of being an acceptable intervention for those who attended. We were less successful in achieving one of the primary aims of the workshop – to help friends and family members learn DBT skills. We hypothesised that if friends and family members learnt DBT skills the invalidating environment between themselves and the person with BPD would improve. The study found that the relationship improved without an apparent change in DBT skills. In the empirical paper we discussed the alternative mechanisms that might have been responsible for this improvement. We are left with the question of whether it is necessary to teach participants DBT skills or whether it would be more effective to focus on other aspects of the workshop such as improving group support. To determine whether it is useful for the friends and family of people with BPD to learn DBT skills it is first important to ensure that we are teaching the skills in the most effective way. Here we discuss how we might adapt the workshop to increase the likelihood that participants will improve their mindfulness and emotion regulation skills.

A common statement from the participants was that the amount of information that was presented over the day was overwhelming and this may have limited the amount they learned.

*“(…) packed too much in, I was really tired by 4pm. I couldn’t take any more in.” (P9)*

*“The problem is there’s lots of good ideas but are you going to remember? (P34)”*

We responded to this feedback by providing a booklet which explained and reformatted Linehan’s (1993) skills sheets (see Appendix E). This provided the participants with more comprehensive and comprehensible written resources to refer to once they left the workshop. We found that the booklet also helped structure and focus the workshop because both the participants and facilitators had a shared

framework that they could refer to during the workshop. The introduction of the booklet was received very positively. In the follow up interviews we showed the booklet that we were about to introduce to the participants who attended the first workshop:

*“There’s an awful lot of good stuff in there. It’s more approachable and less academic. Good that it refers to more information Good layout and good that it has space to write your own notes – although I’d need even more space than that.” (P8)*

*“(…) much better presented – it doesn’t look heavy – it looks simple. We could read it quickly or you could send it in advance [of the workshop] and then we could have focussed on practicing the skills.”*

Despite the new booklet, participants in the second and third workshops still said that there was too much information. They said:

*“Give us a chance to reflect, process and get ready for the next session – I needed a break” (P4)*

*“There was too much information in one go. One day was not enough. Perhaps we need a few weeks.” (P28)*

It may, therefore, be better to run the workshop over a number of weeks in a similar way to the Family Connections programme (Hoffman et al., 2005) and DBT-Family Skills Training programme (Hoffman, 1999). This would allow the participants time to absorb the new information. Splitting the workshop into several sessions may also address another factor that may have reduced the effectiveness of the skills teaching; approximately half of the participants said they had not practiced the skills. Encouraging practice is important; Linehan (1993) states that homework is essential in order to master DBT. If the participants are aware that they may be asked about their skills practice in a future session they may be more motivated to practice. Multiple sessions would also provide an opportunity to troubleshoot any difficulties that participants had implementing or practicing the skills.

The approach used in teaching the skills may also need to be refined. We tried to adopt a less abstract, practical approach but perhaps this did not go far enough.

We could invite the people who have already experienced the workshop and clients to run the workshop with us. They may be able to offer concrete examples based on their own experiences or communicate ideas in a way that workshop participants find easier to understand. Their presence may have the added advantage of acting as a testimonial or demonstration of the effectiveness of using the skills suggested in the workshop.

A further challenge to participants' skill development was that they felt unable to implement anything they learnt because the person with BPD was unreceptive

*"In fact I've tried to [use the DBT skills]– but it has always been difficult. She knows I'm trying to do skills with her and she gets resentful when I try to." (P3)*

Or they feared an unreceptive response:

*"I don't want to patronise, we do it in the moment and don't talk about it."(P29)*

Others found it difficult to implement the skills in a crisis

*"Although in a crisis felt unsure – not sure if could be helpful and make it worse instead." (P8)*

It may be possible to address some of these issues by inviting the client to attend the workshop. This may enable friends and family members to problem solve alongside the client in the room and agree how they both might use the DBT skills more effectively. The client's presence would also allow them to use their comparative expertise in DBT skills to help friends and family learn the skills whilst putting them in a more positive and empowered role.

*"I need an outside perspective – getting feedback from partner – she's more knowledgeable than I am (...) but then it's easier to apply skills academically not practically." (P4)*

However, some of the participants said they appreciated the opportunity to talk and consider their situation apart from the person with BPD. Perhaps a compromise is to invite the clients with BPD to attend just one section of the workshop.

As we discussed in the empirical paper there may have been other mechanisms that were responsible for the positive changes in participants' report of the invalidating environment between themselves and their friends and family. Most of the participants stressed the importance of the social support they gained by meeting other people who are affected by BPD. We minimised the amount of time that friends and family had to talk about their personal situations because we focussed on teaching the skills. It is important to run studies to determine what the active ingredients of the interventions are so we can decide how long to spend on each of these elements during the workshop.

### **Outcome measurement**

In order to determine if and how the workshop may be having an effect we need to use the right measures in the right way to evaluate the outcomes. Here we discuss how to improve the measurement of outcomes in future studies.

### **Measuring DBT skills**

In our study we measured each of the DBT skills separately in an attempt to measure whether people's ability improved on each of skills. In retrospect this may have been overly ambitious as this has yet to be attempted in studies of longer term DBT therapy (Neacsiu, Rizvi, & Linehan, 2010).

There were also some issues with the DBT skills measures. Firstly, they may not have been sensitive enough to record changes in specific skills or they may have been too specific to record broader, but still beneficial, changes. Secondly, the burden on participants to complete the measures was still relatively high despite our efforts to find measures that minimised burden whilst still providing reliable and efficient data. A separate, but important, issue is our qualitative finding that some

people did not use the DBT skills at all. It would be helpful to know how often people utilise the skills after the workshop.

A measure that addresses these issues is the DBT ways of coping checklist (DBT-WCCL) (Neacsiu, Rizvi, Vitaliano, Lynch, & Linehan, 2010). It is a briefer measure of DBT skill use which avoids jargon and measures broader behaviours. It is an adaptation of the Revised Ways of Coping Checklist (RWCCL; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985) which includes additional items intended to represent the core DBT skills. The DBT-WCCL is a self-report questionnaire which has 38 items measuring frequency of DBT skills use over the previous month and 21 items measuring dysfunctional, non-DBT coping strategies. In order to avoid potential response bias, DBT language and terms that would resemble skills training or use are avoided in this scale and the questions focus on how the respondents have coped with stressful events. A more general description of skilful behaviour is used (e.g., “used GIVE a skills” was replaced with “Made sure I’m responding in a way that doesn’t alienate others”). To further reduce the burden on participants in future studies the 21 items measuring dysfunctional, non-DBT coping strategies could be excluded. However, these items may give important information about the change in the person’s behaviour. The decision on whether to include or exclude these items is likely to depend on which other measures are included in the study and the overall burden that this places on the participants.

The finding that clients’ perception of the invalidating environment improved following the workshop was based on measuring the invalidating environment using an adapted version of the Invalidating Environment in Childhood Scale (Mountford et al., 2007). Although the resulting scale was briefly piloted its reliability and validity has not been demonstrated. We also noticed there was a floor effect for some

of the clients. Qualitative feedback suggested that their relationships had benefited from the workshop but this could not be detected on the invalidating environments measure because they had already reported the lowest possible scores at baseline measurement. The scale's focus on the existence of negative interpersonal interactions might also preclude it from detecting the addition of positive interactions.

### **Measuring the relationship or invalidating environment**

A more sensitive measure of the relationship between people with BPD and their friends and family might be developed by adapting the McGill Friendship Questionnaire - Friend's Functions (MFQ-FF) (Mendelson & Aboud, 1999) to make it appropriate for relatives and partners. The MFQ-FF consists of 30 questions, five for each of six functions (stimulating companionship, help, intimacy, reliable alliance, emotional security, and self-validation). Each item is a positive statement about a specific friend fulfilling a friendship function (e.g., 'X is someone I can tell private things to'). The respondent indicates 'how often the friend is or does what the item says' on a 9-point scale (0–8), on which five of the points are labelled (0 = never, 2 = rarely, 4 = once in a while, 6 = fairly often, and 8 = always). The mean of the 30 items is taken as the respondent's assessment of the friend's overall contribution to the friendship. Psychometrics for the scale are good with a very high internal consistency for both contacts and partners (Cronbach's alphas = .97 and .96, respectively).

The advantage of using this scale is that it can be partnered with an adapted version of the McGill Friendship Questionnaire-Respondent's Functions (MFQ-RF; Mendelson & Aboud, 1999). The MFQ-RF assesses the degree to which respondents believe that they fulfil, or attempt to fulfil, friendship functions for a friend. Its 30

items correspond to items in the MFQ-FF, but each item was reworded to be a positive statement about the respondent fulfilling, or attempting to fulfill, one of the six friendship functions for a specific friend (e.g., 'I am someone [my friend] tells private things to' and 'I try to make [my friend] feel that he/she can do things well'). The respondent indicates 'how often [he/she is or does] what the item says' on the 9-point scale described for the MFQ-FF. The mean of the 30 items was taken as a self-reported assessment of the respondent's overall contribution to the friendship. The internal consistency of the MFQ-RF was very high for both contacts and partners (Cronbach's alphas = .96 and .97, respectively).

### **Measuring other outcomes or mechanisms**

As discussed in the empirical paper, mechanisms other than improvement in DBT skills may explain the improvement in the invalidating environment between the person with BPD and their friends and family. The proposed mechanisms are depicted in Figure 1. Hoffman et al. (2005, 2007) measured a number of different factors which overlap with the mechanisms predicted in Figure 1. Using the same measures as Hoffman et al. (2005, 2007) would allow their workshops to be compared more directly with the briefer workshop used in our study.

Hoffman et al. (2005) measured subjective burden using the Burden Assessment Scale (BAS-Subjective section; Reinhard et al., 1994). The BAS is a 19-item scale that evaluates two aspects of caregiving (objective burden and subjective burden). The BAS-Subjective section consists of nine items assessing feelings of embarrassment, guilt about not doing enough and about causing the relative's illness, stigma, resentment, worries about the future and about making things worse, and feeling trapped and upset. Sample items include "I feel trapped by my caregiving role," and "I worry about how my behaviour with (name) might be making the

illness worse." Items were answered using a 4-point scale, ranging from 1 (not at all) to 4 (a lot). Higher scores indicate higher feelings of subjective burden, and the internal consistency is .80 (Cronbach's alpha).

Friends and family members' perception of coping was assessed using the Mastery Scale (Dixon et al., 2001). The scale consists of 7-items with two items measuring sense of mastery and five items tapping pessimism or lack of control. Respondents rated the items on a 1–4 scale with higher scores indicating a greater sense of mastery.

The Centre for Epidemiological Studies Depression Scale (CES-D) is a 20-item self-report measure (Radloff, 1977) which assesses depressive symptoms over the past week. The internal consistency is .91 (Cronbach's alpha) and it has been found to be valid in a wide range of contexts (Orme, Reis, & Herz, 1986). Hoffman et al. (2005) also used the Grief Scale (Struening et al., 1995) which focuses on the respondent's current feelings of grief and this could also be used in future studies.

### **Self-report**

The scales used in the current study and those that have been proposed tend to rely on the participants' self-report of their own ability. This may not be the most valid or accurate way of evaluating participants' capability because self-report measures can only assess the individual's beliefs about their own ability rather than assessing their actual level of ability. People's impressions of their cognitive and social skills often correlate only modestly, and sometimes not at all, with measures of their actual performance (Falchikov & Boud, 1989). They may also lack insight into the amount of knowledge they gain from a workshop because not all learning is conscious; people may know without being aware that they know (Augusto, 2010). Conversely, the workshop may have provided insight into a skill deficit of which the



participants were previously unaware. Acquiring an awareness that a skill is lacking could be positive because it motivates people to address the problem (Dunning, Johnson, Ehrlinger, & Kruger, 2003) but this gain would not be recorded by the measures and the scores may even suggest that their level of ability has declined.

Using participants' self-report may also lead to response bias because people can be influenced by how they might like to be seen or how they prefer to think about themselves (Furnham, 1986). The participants may have been unwilling to declare that they had difficulty with emotion regulation or were generally not mindful. As recommended by Nederhof (1985) we tried to reduce the likelihood of participants giving socially desirable responses rather than accurate responses by reassuring them of the anonymity of their responses and encouraging them to self-administer the questionnaires. However, at one month follow up participants self-administered the measures in our presence which is not really anonymous (Nederhof, 1985) and following the workshop participants often had a good rapport with us which tends to make responses more susceptible to social desirability (Bowling, 2005). We needed to be present when the participants completed the measures in order to maximise the response rate. We tried to compensate for the potential response bias by reassuring them that we would not examine their individual scores because results would be studied as a group. To further reduce the chance of response bias a separate researcher could administer the self-report measures.

To improve the validity and accuracy of self-report measures other sources such as the judgement of others or objective records could be compared with the self-reported measures and the scores triangulated to gain a more accurate estimate. For example, in the future it may be possible to use brain scanning technologies to corroborate mindfulness self-report scales. However, although these methods are

yielding fascinating results in both long-term meditators and participants in mindfulness-based interventions (Kilpatrick et al., 2011), it is not yet clear that brain scans can be used to quantify the general tendency to be mindful in daily life. We are many years away from scans being accurate, affordable and quick enough to justify using brain scans in investigations of DBT workshops.

### **Durability of effect**

A further dilemma for future studies is when and how often to measure outcomes. We chose to measure the effect at one month follow up. The decision was based on what was practical at the time and because we hypothesised that a month would be long enough for an effect to take place. However, it might be that people need longer to practise and implement new skills. Studies examining the effectiveness of workshops for the families of people with schizophrenia found consistent evidence of efficacy only in those studies in which the intervention was provided on an on-going basis and lasted for at least 6 months (Linszen et al., 1996).

It is also possible that at one month follow up the temporary effects of the workshop are still operating and any effect measured may not reflect a sustained change. For example, some people said that the fact that they went to the workshop made a difference to their friend or family member because they could see the level of commitment they were making. This might be an important first step but it is less likely that a change on this basis will persist over time. In addition, the changing nature of BPD symptoms over relatively short periods of time (Shea et al., 2002) means that outcome measurement is highly influenced by temporary fluctuations in behaviour.

Future studies might consider measuring outcomes over a longer period and more than once to compensate for these issues. Measuring outcomes at one month and 6 month follow up may offer a good compromise.

In making the decision of which measures to use in a study and how often to administer the measures future studies should collaborate with people that have BPD and their friends and family so that the most acceptable and relevant outcome measures are chosen (Rose, 2003).

### **Conclusions**

In this critical review we have recommended that researchers following on from this study should make a number of changes to the protocol including; the recruitment method, workshop delivery and the way that outcomes are measured. In particular, we believe that studies would benefit from inviting clients with BPD and their friends and family to join them in designing and running the study. Adopting a collaborative approach may help overcome some of the recruitment difficulties and improve the effectiveness of the workshop.

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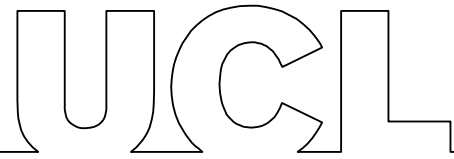


Appendix A:  
DBT skills workshop questionnaire

The DBT skills workshop questionnaire includes:

- Demographic details and information about the relationship
- Distress Tolerance Scale (DTS)
- Difficulties in Emotion Regulation Scale (DERS)
- Philadelphia Mindfulness Scale (PHLMS)
- Inventory of Interpersonal Problems (25-item) (IIP)

SKILLS WORKSHOP QUESTIONNAIRE



**Please tell us about yourself:**

<b>Gender</b>	Male <input type="checkbox"/>	Female <input type="checkbox"/>			
<b>Age</b>	<25 <input type="checkbox"/>	25-34 <input type="checkbox"/>	35-44 <input type="checkbox"/>	45-54 <input type="checkbox"/>	>55 <input type="checkbox"/>
<b>Ethnicity</b>	White <input type="checkbox"/>	Mixed <input type="checkbox"/>	Asian or Asian British <input type="checkbox"/>	Black or Black British <input type="checkbox"/>	Other ethnic groups <input type="checkbox"/>

**Please tell us about your relationship with the person who has been given a diagnosis of BPD:**

<b>How long have you know them?</b>	Less than a year <input type="checkbox"/>	2-3 years <input type="checkbox"/>	4-5 years <input type="checkbox"/>	6-10yrs <input type="checkbox"/>	11 years + <input type="checkbox"/>
<b>On average how often do you see each other each week?</b>	Less than an hour pw <input type="checkbox"/>	2 – 5 hrs a week <input type="checkbox"/>	6 – 10 hrs pw <input type="checkbox"/>	11 -20 hours per week <input type="checkbox"/>	21 hours or more pw <input type="checkbox"/>
<b>What is the nature of your relationship? They are your ....</b>	Friend <input type="checkbox"/>	Partner <input type="checkbox"/>	Parent <input type="checkbox"/>	Child <input type="checkbox"/>	Other relative <input type="checkbox"/>
	Other <input type="checkbox"/> (please specify).....				

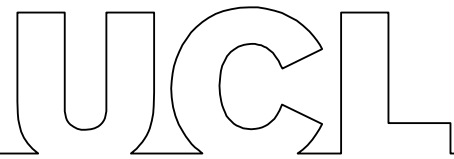
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Appendix B:  
Invalidating Environments Scale

The following scale was completed by clients with BPD over the telephone. If the person's friend, relative or partner was male the first questionnaire was used. If they were female the second questionnaire was used.

SKILLS WORKSHOP FOR FRIENDS & FAMILY:  
CLIENT QUESTIONNAIRE

M



**How have things been between you and the person attending the workshop?**

You recently recommended a **male** friend, partner or family member attend a 1 day skills workshop. Please think how things have been between you and that person over the past month and answer the following questions:

	Never	Rarely	Some of the time	Most of the time	All of the time
1. He becomes angry if I disagree with him	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. When I am anxious he ignores me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. When I am happy he is sarcastic to me and says things like 'What are you smiling at?'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. When I am upset he says things like 'I'll give you something to cry about'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. He makes me feel ok if I tell him that I don't understand something.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. If I am feeling pleased that I have done something well, he says things like 'don't get too confident'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If I say I can't do something he will say things like 'you're just being difficult'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. He understands me and will help me if I can't do something straight away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. He says things like 'talking about worries makes them worse'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. If I try really hard but can't do something he tells me I am lazy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. He explodes with anger if I make decisions without asking him first.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. When I am miserable he asks me what is upsetting me, so that he can help me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. If I can't solve a problem he says things like 'Don't be stupid – even an idiot could do that'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. When I talk about my plans for the future he listens to me and encourages me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: ..... - THANK YOU FOR HELPING US!

SKILLS WORKSHOP FOR FRIENDS & FAMILY:  
CLIENT QUESTIONNAIRE

F



**How have things been between you and the person attending the workshop?**

You recently recommended a **female** friend, partner or family member attend a 1 day skills workshop. Please think how things have been between you and that person over the past month and answer the following questions:

	Never	Rarely	Some of the time	Most of the time	All of the time
1. She becomes angry if I disagree with her	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. When I am anxious she ignores me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. When I am happy she is sarcastic to me and says things like 'What are you smiling at?'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. When I am upset she says things like 'I'll give you something to cry about'	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. She makes me feel ok if I tell her that I don't understand something.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. If I am feeling pleased that I have done something well, she says things like 'don't get too confident'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If I say I can't do something she will say things like 'you're just being difficult'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. She understands me and will help me if I can't do something straight away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. She says things like 'talking about worries makes them worse'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. If I try really hard but can't do something she tells me I am lazy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. She explodes with anger if I make decisions without asking her first.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. When I am miserable she asks me what is upsetting me, so that she can help me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. If I can't solve a problem she says things like 'Don't be stupid – even an idiot could do that'.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. When I talk about my plans for the future she listens to me and encourages me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Date: ..... - THANK YOU FOR HELPING US!

### Appendix C:

#### Feedback form and semi-structured interview schedule

The following feedback form and interview schedule was used with participants at one month follow up.

### Skills Workshop Evaluation & Feedback Form

**What was your overall experience of the workshop?**

.....

.....

.....

.....

.....

**Please rate your overall experience of the group:**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Very dissatisfied	Dissatisfied	Neither satisfied Nor dissatisfied	Satisfied	Very Satisfied

**Do you think that you now have a better understanding of:**

**- mindfulness skills?**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not at all	A bit more	Somewhat more	A lot more

**- distress tolerance skills?**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not at all	A bit more	Somewhat more	A lot more

**- emotion regulation skills?**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not at all	A bit more	Somewhat more	A lot more

**- interpersonal effectiveness skills?**

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not at all	A bit more	Somewhat more	A lot more



**Have you applied any of the skills discussed in the workshop? If so which were they, and which (if any) did you find the most useful?**

.....

.....

.....

.....

**How did you go about applying the skills and what might help you to apply them further?**

.....

.....

.....

.....

**Have you been able to support the person you care for in using these skills? How have you gone about doing this?**

.....

.....

.....

.....

**What has been most useful about the workshop?**

.....

.....

.....

.....

**What has not been useful?**

.....

.....

.....

.....

**What could we do differently or better? Is there anything you would have liked more or less of?**

.....

.....

.....

.....

**Any further comments?**

.....

.....

.....

.....

Appendix D removed for publication in the library.

Appendix E:

DBT skills manual for friends, partners and relatives

Linehan's (1993) skills sheets were reformatted and linked with explanations that were designed specifically for the workshop in this study. Space is given for participants to make their own notes.

Every footer of the new manual referenced Linehan's (1993) manual with the following sentence:

*“Adapted from The Skills Training Manual for Treating Borderline Personality Disorder by Marsha Linehan ©1993 The Guildford Press.”*

Each page in this appendix depicts four pages from the new manual. The following page order is used:


1	2
3	4

Only the first four pages of the manual are reproduced below due to copyright issues.

**DBT skills manual for friends, partners and relatives**  
of people who have a diagnosis of Borderline Personality Disorder



*People who have Borderline Personality Disorder regularly face extremely difficult emotions.*

*You face these emotions with them.*



*This manual teaches four essential sets of skills which will help you both.*

*This manual is adapted from Marsha M. Linehan's book 'Skills Training Manual for Treating Borderline Personality Disorder'. For more information you can purchase Marsha's book.*

 North East London   
NHS Foundation Trust

## Introduction

We all experience strong emotions and find things difficult at times. You've probably developed your own strategies for coping. This manual aims to help you build on these, and teach you additional skills. What works for one person may not work for another but the manual should have some ideas that you will find helpful.

### Contents

Distress tolerance skills ..... 3

Emotion regulation skills ..... 7

Mindfulness skills ..... 17

Interpersonal effectiveness skills ..... 20

## Distress Tolerance Skills

When you have really strong emotions it is very difficult to think clearly or act wisely. It is better to distract, self-soothe or make the moment better. This should make you calmer and once you are feeling better you can decide how to deal with the situation.

### Distress Tolerance Skills

#### Improve the moment

Acronym: IMPROVE

**Imagery**  
Imagine very relaxing scenes. Imagine a secret room within yourself, take some time to imagine how it is decorated. Go into the room whenever you feel threatened. Make up a fantasy world that is calming and beautiful and let your mind go with it.

**Meaning**  
Find or create some purpose, meaning or value in the pain. Remember, listen to, or read about spiritual values. Focus on whatever positive aspects of a painful situation you can find.

**Prayer**  
Open your heart to whichever higher spirituality you believe in.

**Relaxation**  
Be at one with the moment (see the section on mindfulness).

**Vacation**  
Take a 'holiday' from the situation e.g. go for a walk. Or take a 'mental holiday' imagine yourself taking a holiday. Take time out.

**Encouragement**  
Cheerlead yourself. Repeat over and over 'I can stand this', 'it won't last forever'.

**What can you do to distract yourself?**

.....

.....

## DBT Skills

# Summary of DBT skills covered

<b>Distress Tolerance</b>	IMPROVE	Imagery, Meaning, Prayer, Relaxing, One thing, Vacation, Encouragement (cheerleading)
	ACCEPTS	Activities, Contributing, Comparisons, Opposite emotions, Pushing Away, Other thoughts, Intense Sensations
	Self-soothe	Use the five senses
<b>Emotion regulation</b>	Describe emotions	
	Opposite to emotion actions	Do the opposite of what the emotion wants
	ABC PLEASE	Accumulate positives, Build mastery, Cope ahead, Physical Illness, Eating, Avoid Drugs, Sleep, Exercise
	Mindfulness of current emotion	
<b>Mindfulness</b>	Wise Mind	
	Observe	Just notice
	Describe	Put the facts into words
	Participate	Enter into the experience
	Don't judge	
	Bring yourself back to the task	
<b>Interpersonal skills</b>	DEAR	Describe, Express, Assert, Reinforce
	MAN	Mindful, Appear Confident, Negotiate
	GIVE	Gentle, Interested, Validate, Easy manner
	FAST	Be Fair, Not too apologetic, be truthful, stick to values

## Appendix F:

## Joint thesis statement

This was a joint thesis conducted in partnership with my friend and course mate, Mary-Beth Young. We contributed equally to the study and were both fully involved in; the study's design, ethics application, recruitment, the delivery of the intervention, administering measures to clients and their friends and family, conducting semi-structured interviews and analysing the quantitative and qualitative results.

The theses were written independently of each other.

Appendix G:  
Participant information sheets and consent forms

## PARTICIPANT INFORMATION SHEET

### Evaluating a Skills Workshop for Supporters of Clients with Borderline Personality Disorder

**Researchers:** Dan Seal & Mary Beth Young (Trainee Clinical Psychologists)

#### Introduction to our research study

We know that people who have Borderline Personality Disorder regularly face the most extreme and difficult emotions. As their friend, relative or partner you face these emotions with them.

We have therefore developed a one-day workshop that we believe is very helpful to friends, relatives and partners of people with Borderline Personality Disorder.

We would like to invite you to take part in our research study to evaluate the effectiveness of the workshop. However, before you decide whether to take part please take your time to read the following information carefully.

You may talk to anyone you wish about the research and you can take time to reflect on whether to participate or not. You are very welcome to contact us if there is anything that is not clear or if you would like more information, Daniel Seal or Mary-Beth Young on, [Daniel.Seal.09@ucl.ac.uk](mailto:Daniel.Seal.09@ucl.ac.uk) or [Mary-Beth.Young.09@ucl.ac.uk](mailto:Mary-Beth.Young.09@ucl.ac.uk).

This study will form part of our Doctorate in Clinical Psychology training, at University College London.

#### Why have I been chosen?

You have been asked to take part in the study because you support someone who has a diagnosis of Borderline Personality Disorder.

#### What will happen to me if I do take part?

If you agree to take part you will be asked to complete a set of questionnaires. Once we have received these we will contact you to arrange a suitable date for you to attend the skills workshop.

The skills workshop will run for one day, from approximately 10am to 5pm with lunch and coffee breaks. It aims to teach you four essential skills that will help you and show you how to help your friend, relative or partner.

You will be given a folder that you can keep, detailing the skills taught in the workshop. Facilitators will also be available to give advice.

Immediately before the skills workshop starts you will be asked to complete a further set of questionnaires.



**Workshop timetable:**

<b>Time</b>	<b>Topic</b>
10:00	Introduction and how best to learn the four new skills.
10:15	<b>1. Mindfulness:</b> how to calm and focus the mind
11:30	Break
11:45	<b>2. Tolerating distress:</b> how to get through the most difficult times
13:00	Lunch
13:45	<b>3. Regulating emotions:</b> how to manage emotions and give yourself space to think
14:45	Break
15:00	<b>4. Interpersonal effectiveness:</b> how to get along even when you disagree
16:00	Bringing it all together – how to use these skills to make life better for you and your friend, relative or partner.
17:00	End

One month after the workshop we will ask you to complete and return a further set of questionnaires. You will also be offered the opportunity to meet individually with one of the researchers. We will offer you any further assistance that you may need with the skills you learned in the workshop. We would also like to hear your thoughts and opinions about the workshop and we will ask your permission to audio-tape this feedback.

### **What will happen to the person I support who has a diagnosis of Borderline Personality Disorder?**

The person that you support will be asked to complete a short questionnaire. They will be asked how things have been, over the past month, between the two of you.

We will also ask them to complete the questionnaire at the same three time points as we will ask you to complete some other questionnaires.

### **Do I have to take part?**

No, you do not have to take part in the study. It is up to you to decide whether you wish to take part or not. Deciding not to take part in the study will not affect the care you receive from services now or in the future, nor will it affect the care given to the person you support.

If you do give consent to take part in the study, you are still free to leave the study at any point, without having to give a reason, and any information that we have already collected from you will be destroyed.

### **Who will know I am taking part in the study?**

All of the written information you provide will be anonymised, so that you can not be identified. All anonymised data will be securely destroyed within 7 years of the study in keeping with the Data Protection Act, 1998.

**What are the possible benefits of taking part in the study?**

As an acknowledgement of participant's time and expertise, we will be offering you £15 for attending the workshop and completing the three sets of questionnaires.

You may also find it interesting and beneficial to have time to talk about your experiences of supporting someone who has Borderline Personality Disorder, and to develop skills.

The information gathered during this study will also help to inform our understanding of how we can further support those who support our clients with the diagnosis of BPD.

**What are the possible disadvantages or risks of taking part in the study?**

Some people can find it upsetting to talk about their experiences of supporting others. However, this is not the case for most people, and we will support you if you become upset as a result of participating in the study.

**What happens if something goes wrong?**

Every care will be taken in the course of this study. However, in the unlikely event that you are injured by taking part, compensation may be available.

If you suspect that the injury is the result of the Sponsor's (University College London) or the hospital's negligence then you may be able to claim compensation. After discussing with your researcher, please make the claim in writing to Janet Feigenbaum who is the Chief Investigator. The Chief Investigator will then pass the claim to the Sponsor's Insurers, via the Sponsor's office. You may have to bear the costs of the legal action initially, and you should consult a lawyer about this.

Regardless of this, if you wish to complain, or have any concerns about any aspect of the way you have been approached or treated by members of staff or about any adverse events you may have experienced due to your participation in the research, the normal Health Service complaints mechanisms are available to you. Please ask your researcher if you would like more information on this. Details can also be obtained from the Department of Health website: <http://www.dh.gov.uk>

**What will happen to the results of the research study?**

The results of the study will be printed as part of our doctoral thesis. The results of the study will also be published in a scientific journal and presented at a national or international conference.

**Who has reviewed the study?**

The study has been reviewed by research staff at the University College London. The study has also been granted ethical approval.

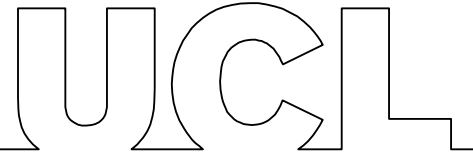
**What should I do now?**

If you are interested in taking part in the study, please complete the attached slip and return it to us in the enclosed stamped and addressed envelope, and we will then contact you to discuss the study further, and answer any questions you may have.

**Thank you very much for taking the time to read this information sheet.**

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PSYCHOLOGY

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## PARTICIPANT CONSENT SHEET

### Evaluating a Skills Workshop for Supporters of Clients with Borderline Personality Disorder

**Researchers:** Dan Seal & Mary Beth Young (Trainee Clinical Psychologists)

Please tick box if you agree

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, and to ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. I agree to take part in the above study.
4. I would like to receive feedback on the results of this study.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

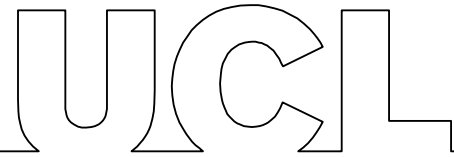
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Signature

Appendix H:  
Client information sheets and consent forms

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## **PARTICIPANT INFORMATION SHEET FOR CLIENTS**

### **Evaluating a one day skills workshop for friends, family and partners of people with a diagnosis of Borderline Personality Disorder**

**Researchers:** Dan Seal & Mary Beth Young (Trainee Clinical Psychologists)

#### **Introduction**

We would like to invite you to take part in a research study. Before you decide whether to take part please take your time to read the following information carefully. You may talk to anyone you wish about the research and you can take time to reflect on whether to participate or not. You are very welcome to contact us if there is anything that is not clear or if you would like more information, Daniel Seal or Mary-Beth Young on, [Daniel.Seal.09@ucl.ac.uk](mailto:Daniel.Seal.09@ucl.ac.uk) or [Mary-Beth.Young.09@ucl.ac.uk](mailto:Mary-Beth.Young.09@ucl.ac.uk).

#### **What is the purpose of this research study?**

The purpose of the study is to evaluate the effectiveness of a one day skills workshop for friends, family and partners of people who have been given a diagnosis of Borderline Personality Disorder.

We would like your feedback to help us find out whether the workshop improves things between you and those who attend the workshop.

This study will form part of our Doctorate in Clinical Psychology training, at University College London.

#### **Why have I been chosen?**

You have been asked to take part in the study because someone you know will be attending the one day workshop.

#### **What will happen to me if I do take part?**

If you agree to take part you will be asked to complete a questionnaire. It should take about 5 minutes to complete and asks how things have been, over the past month, between you and the person (or people) attending the workshop.

We will also ask you to complete the questionnaire on three occasions. At the start of the study, shortly before your friend, relative or partner attended the skills workshop, and one month afterwards.

**Do I have to take part?**

No, you do not have to take part in the study. It is up to you to decide whether you wish to take part or not. Deciding not to take part in the study will not affect the care you receive from services now or in the future.

If you do give consent to take part in the study, you are still free to leave the study at any point, without having to give a reason, and any information that we have already collected from you will be destroyed.

**Who will know I am taking part in the study?**

All of the written information you provide will be anonymised, so that you can not be identified. All anonymised data will be securely destroyed within 7 years of the study in keeping with the Data Protection Act, 1998.

**What are the possible benefits of taking part in the study?**

Your feedback will help us develop workshops that improve the situation for people with a diagnosis of Borderline Personality Disorder and their friends, family and partners.

**What are the possible disadvantages or risks of taking part in the study?**

We don't anticipate any disadvantages or risks to you taking part in the study. However, we will support you if you feel the study has caused a problem,

**What happens if something goes wrong?**

Every care will be taken in the course of this study. However, in the unlikely event that you are injured by taking part, compensation may be available.

If you suspect that the injury is the result of the Sponsor's (University College London) or the hospital's negligence then you may be able to claim compensation. After discussing with your researcher, please make the claim in writing to Janet Feigenbaum who is the Chief Investigator. The Chief Investigator will then pass the claim to the Sponsor's Insurers, via the Sponsor's office. You may have to bear the costs of the legal action initially, and you should consult a lawyer about this.

Regardless of this, if you wish to complain, or have any concerns about any aspect of the way you have been approached or treated by members of staff or about any adverse events you may have experienced due to your participation in the research, the normal Health Service complaints mechanisms are available to you. Please ask your researcher if you would like more information on this. Details can also be obtained from the Department of Health website: <http://www.dh.gov.uk>

**What will happen to the results of the research study?**

The results of the study will be printed as part of our doctoral thesis. The results of the study will also be published in a scientific journal and presented at a national or international conference.

**Who has reviewed the study?**

The study has been reviewed by research staff at the University College London. The study has also been granted ethical approval.

**What should I do now?**

If you agree to take part in the study please complete the attached 'Consent form' and return it to us in the enclosed stamped and addressed envelope along with your completed questionnaire. Alternatively if you wish to discuss the study further, please contact us, Dan Seal or Mary-Beth Young, on [Daniel.Seal.09@ucl.ac.uk](mailto:Daniel.Seal.09@ucl.ac.uk) or [Mary-Beth.Young.09@ucl.ac.uk](mailto:Mary-Beth.Young.09@ucl.ac.uk) and we can discuss the study in more detail.

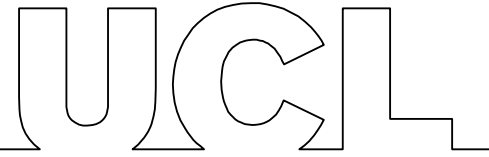
**Thank you very much for taking the time to read this information sheet.**

**Daniel Seal & Mary Beth Young**

Research Department of Clinical, Educational and Health Psychology  
General Office - Room 436, 4th Floor  
1-19 Torrington Place, London WC1E 6BT

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**PARTICIPANT CONSENT SHEET FOR CLIENTS**  
**Evaluating a one day skills workshop for friends, family and partners of people with a diagnosis of Borderline Personality Disorder**

**Researchers:** Dan Seal & Mary Beth Young (Trainee Clinical Psychologists)

Please tick box if you agree

1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, and to ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.
3. I agree to take part in the above study.
4. I would like to receive feedback on the results of this study.

\_\_\_\_\_  
**Name**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Signature**