A Review of the Effectiveness and Mechanisms of Change for Three Psychological Interventions for Borderline Personality Disorder

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Abstract

The therapeutic nihilism common in much of the early literature on borderline personality disorder (BPD) has given way to a growing research base with findings indicating the effectiveness of a number of psychological treatments. This article will review three major evidence-based treatments for BPD; dialectical behaviour therapy (DBT), schema-focused therapy (SFT) and mentalization-based treatment (MBT). While not a panacea, these treatments have provided, to differing degrees, a reasonable level of evidence indicating therapeutic effectiveness. The evidence base for each of these models is discussed as well as possible mechanisms of change. The article highlights similarities between the differing modalities as well as the features that distinguish the models. The article contends that increasing mentalization skills may be a common underlying factor in all treatments for individual with BPD. The authors conclude by discussing the difficulties and potential benefits of treatment integration.

Keywords: borderline personality disorder, dialectical behaviour therapy, mentalization based therapy, schema focused therapy

Epidemiology and Diagnosis

BPD can be categorised as a debilitating and prevalent psychiatric disorder, which is characterised by severe mental functional impairment and a chronic pervasive pattern of emotional and interpersonal instability (Oldham, 2006; McMain & Pos, 2007). Epidemiological studies vary, with prevalence rates ranging from 0.5% to 5.9% in the US general population (Grant et al., 2008), to rates of up to 25% in clinical populations (Gunderson, 2009). Questions still persist regarding the polythetic nature of the disorder, as well as its heterogeneous presentation, with five diagnostic criteria needing to be met out of a possible nine according to current DSM criteria (APA, 2013). This operational criterion has proven problematic when attempting to assess the impact of specific intervention components as clients may present with varying symptoms. The debate regarding personality disorders as either discrete clinical conditions or arbitrary distinctions on a spectrum has been the source of much debate (Widiger, Clark, & Livesley, 2009). The relative strengths and weaknesses of categorical, dimensional or functional syndromal classification are beyond the scope of this review but it is pertinent to understand their ability to, depending on classification preference, either instruct or obstruct treatment intervention. Complicating the matter further is the differing evidence indicating the effectiveness of pharmacotherapy for the disorder. Despite research reporting the beneficial use of pharmacotherapy (Ingenhoven et al., 2010), two Cochrane reviews (Stoffers et al., 2010; Nose et al., 2006) have indicated that there is

minimal evidence of their effectiveness in the treatment of many of the differing BPD components.

This article will review three major evidence based treatments for BPD; dialectical behaviour therapy (DBT), schema focused therapy (SFT) and mentalization-based treatments (MBT). The review firstly aims to provide a succinct overview of the treatment components of each of the therapies. The article also provides review of the evidence base of each of the approaches as well as proposed mechanisms of change underlying each model. A comparison of the distinctive elements of each approach will also be presented. Finally, we will argue for the potential of mentalization as a common therapeutic factor in treating BPD across the modalities.

Questions persist about the external validity of randomised controlled trial paradigm (RCTs) and their suitability in establishing an "evidence-base" for effectiveness. This is true when RCTs are the method applied in attempting to measure a chronic fluctuating condition such as BPD. A single criterion, single end-point analyses may be a poor predictor of longer terms outcome. Deriving an empirical basis for psychological therapies is a complex process. RCTs provide an important, but by no means flawless method in establishing an understanding of a therapeutic orientation (Fonagy, 2015). For this reason, the review included a range of differing studies including single case studies, non-randomised trials and RCTs in order to provide a holistic view of the respective treatments.

Clinical Guidelines

The National Institute for Health and Clinical Excellence (NICE, 2009) posits that psychotherapy is the treatment of choice for BPD and that possible self-injurious behaviour should not be a reason for individuals to be excluded from treatment. The guidelines conclude that any psychotherapy should adhere to the following; (a) built around an explicit

and integrated theoretical orientation within a multi-disciplinary team setting, (b) structured care in accordance with this approach, and (c) that any psychological intervention should not be used for less than a 3-month duration. These are the underlying principles of effective interventions. These common factors have been cited as underpinning the various effective treatments for BPD in adults and adolescents (Fonagy & Allison, 2014; Bateman, Gunderson & Mulder, 2015; Chanen & McCutcheon, 2013).

Dialectical Behaviour Therapy

DBT is a comprehensive skills based treatment programme that focuses on motivational change, validation strategies and an increase in target oriented and appropriate behaviour (Linehan, 1993). Conceptually, the approach involves the transactional perspective on interpersonal and intrapersonal interaction, with such experiences containing valid polarities. The dialectical conceptualisation of the approach posits that the process of change is dependent on a synthesis between contradictory positions (Hayes et al., 2005). DBT proposes that individuals with BPD can manage interpersonal interactions and emotional sensitivities through the acquisition of skills that cultivate mindfulness and help them to better manage interpersonal stressors and emotional arousal. Intense negative emotions, and the inability to modulate them, are important precipitators in self-injurious behaviour (Nixon, Cloutier, & Aggarwal, 2002).There are four major components to DBT treatment. These include individual therapy, group skills training (which includes mindfulness, distress tolerance, emotional regulation and interpersonal effectiveness), between-session telephone coaching, and a therapist consultation team. For example, the DBT therapist teaches the client that one aspect of mindfulness may be to achieve ‘wise mind’, a state that involves a synthesis of logic and emotions (Lynch et al., 2006). Another core skill in decreasing emotional dysregulation includes opposite action, in which the client determines if the feeling is warranted by the situation or event. If not, the client is instructed to block the behaviour

that is prompted by the emotional state and substitute an action that is inconsistent with action tendency of the emotion. DBT is structured in a clear, explicit format with a manual that includes hundreds of specific skill worksheets that fall under one of the four core skills (Linehan, 2014). The treatment in its standard format includes a weekly individual therapy, a weekly two and half hour skills training group and a consultation group for the treating team and is considered resource heavy when compared to other treatment models (Choi-Kain et al., 2017).

Empirical Evidence

Several early studies compared DBT to treatment as usual, with treatment duration varying. In these early studies all clients were women diagnosed with BPD (Linehan et al., 1991; Linehan et al. 1999; Verheul et al., 2003). The results were generally positive, with significant reductions in parasuicidal behaviour. Reduction in self-harm and self-injurious behaviour are often primary outcomes for DBT, with many of the efficacy studies using these criteria as core treatment outcomes (Bohus et al., 2004; Kleindienst et al., 2008) and thus the effectiveness of the treatment is based on therapeutic change in a relatively small number of treatment outcomes. Two relatively early meta-analytical studies (Leichsenring & Leibing, 2003; Perry, Bannon, & Ianni, 1999) indicated that DBT was effective in the treatment of clients with BPD. These findings provided tentative evidence of the effectiveness of DBT. However a number of limitations in the studies included tempered their respective generalizability. Not only were other personality disorders included in the studies, a heterogeneous diagnostic system was employed. This may have affected the ability of specific interventions to accurately gauge what specific treatment components were successful with differing personality disorders. In addition, the sample of severely dysfunctional parasuicidal women in the studies further limit the generalizability of the findings, as well as the differing treatment durations. Furthermore, some of the studies

defined remission as no longer meeting the criteria at a specific time. Research into the phenomenology of BPD suggests that such a static criteria, at a specific point in time, fails to capture the often fluctuating symptomology of the disorder (Zanarini et al., 2003).

A further finding from both meta-analyses indicated that DBT reduced parasuicidal behaviour. Questions remain concerning the mediators of such change. As many of the studies failed to find differential improvement in a range of other outcome measures such as hopelessness and depression, it is possible that the mechanism of this change is mediated by behavioural management more so than a deeper cognitive change (Scheel, 2000; Dimaggio, 2015). This lack of differential effectiveness as well as the perceived inability of DBT to change other core aspects of the disorder, such as chronic feelings of emptiness and identity disturbance, have led some to question the claim that DBT is a comprehensive treatment package (Blennerhassett & O'Raghallaigh, 2005).

The increase in RCTs has yielded a number of more recent studies that have been summarised by Binks et al. (2006) in a Cochrane review. This analysis reviewed seven studies. A further meta-analytical study by Brazier et al. (2006) included another study and a further two that were deemed unsuitable by Binks et al. (2006). Most of the studies included focused on DBT, with each of the meta-analyses concluding that DBT emerged only marginally better than treatment as usual (TAU). The Binks study also examined the cost-effectiveness of DBT reporting limited support for its financial cost. The Cochrane study reported similar findings as the earlier meta-analyses, including that DBT had no clear effect for a proxy measure of improvement. In addition, the study indicated no clear benefit in terms of anger and increased understanding of self-harming acts, however there was a decrease in self-injurious behaviour. This is in contrast to a more recent Cochrane review which found moderate to large statistically significant effects indicating a beneficial effect for DBT over treatment as usual (TAU) for both anger and parasuicidality (Stoffers et al., 2012). The

stringent inclusion criteria of Cochrane however may skew the actual effectiveness, as studies, with only the highest methodological rigour were included, limiting the inclusion of more naturalistic study designs.

The Kliem, Kroger and Kosfelder (2010) meta-analysis, which included 16 studies, found a moderate effect size for DBT treatment, which decreased to a small effect size when compared to other borderline treatments. Such findings are broadly similar to the meta-analysis reported by Ost (2008) regarding the effectiveness of a range of third wave CBT approaches including DBT. A further meta-analysis by Panos et al. (2013) found that DBT was effective in decreasing suicide and parasuicidal behaviour. DBT was not significantly different from treatment as usual in decreasing depressive symptoms in three of the five randomised trials included in the meta-analysis. A major limitation of much of the DBT research involves its main proponents being involved in research. The allegiance effect is common in the broader personality intervention literature with the effectiveness of studies highly correlating with author's orientations (Fonagy, 2015). Despite this and other methodological constraints common to meta-analysis, the Kliem et al. study supports DBT's clinical utility. The studies included varied in terms of group session duration and place, indicating that DBT is a robust treatment for certain symptoms across a range of clinical practices.

DBT mechanisms of change

Taken together the above findings indicate that DBT is an effective means of decreasing certain aspects of borderline psychopathology (Zanarini, 2009). A noticeable absence in much of the DBT research is the lack of emphasis on the process and mechanism of change and how this may impact treatment outcome. Recent dismantling studies may shed light on the processes of change. Lynch et al. (2006) have argued that DBT can be distilled

down to an approach that reduces ineffective actions that are linked to dysregulated emotions. A number of recent pieces of research have attempted to pinpoint what active ingredients make DBT an effective treatment.

Regarding emotional regulation, McMain et al. (2013) showed that participants in DBT who demonstrated greater improvements in problem solving, affect balancing and ability to label and describe emotions showed improved interpersonal functioning. The authors suggested that improvements in emotional regulation are linked to positive treatment outcomes, specifically with distress tolerance and interpersonal functioning skills. Similarly, Kramer et al. (2016), in a methodological robust study indicated that participants in DBT group demonstrated an increased use of an adaptive and assertive anger, indicating greater emotional regulatory skills fostered in the DBT group. These findings suggest that DBT helps clients engage in a functional, adaptive behaviour by regulating strong and at times overwhelming emotions. Strategies such as validation and opposite action, (acceptance and change strategies) may help clients learn functional responses to intense emotions, thus increasing emotional regulation.

Skills use has also been cited as a key teaching of DBT. There have been a number of studies that focused on whether increased skills use replaces maladaptive behaviours. Neacsiu, Rizvi and Linehan (2010) were interested in the acquisition of skills in a sample of women with BPD and drug dependency. Findings from the study indicated provided support for the skills-deficit model for suicidal behaviour in BPD. The authors reported that DBT skills fully mediated an increase in anger control and a reduction in suicide symptoms and depression severity. Those in the DBT group also reported using three times more skills than those in the control at the end of treatment and that skills use increased at 4-month follow-up.

A number of studies have specifically focused on mindfulness skills as this is seen as a core that underpins the other skills (acting mindfully in interpersonal interactions, mindfulness of current thoughts in distress tolerance). Perroud et al. (2012) found that the accepting without judgement component of the mindfulness skill set was found to significantly improve among clients with BPD receiving DBT. Similarly O'Toole et al. (2012) reported on increased mindfulness skills amongst 165 women taking part in DBT. Mindfulness was found to be the strongest predictor of general emotional well-being. Findings also indicated that women who reported a greater use of mindfulness skills availed of fewer services from healthcare providers. Research regarding the other three skills set is limited. Lenz et al. (2016) found that the use of interpersonal effectiveness and emotional regulation were substantial predictors of change in depression and anxiety symptoms in a DBT skills group comprising of 66 adolescents. It is interesting that these two skills, which are known as change skills positively impacted on general psychopathology.

A recent dismantling study by Linehan et al. (2015) provided further evidence of what exactly constitutes the active ingredients of DBT. The methodology involved dismantling the DBT package into the following forms: skills training plus case management (DBT-S), DBT individual therapy plus activities group (DBT-I) and standard DBT. All packages of the treatment were shown to be effective in reducing suicidality. However, the standard DBT package (including both skills training and individual therapy) was not superior to other packages. Findings indicated that the packages which included skills training were more effective in improving mental health difficulties and reducing self-harm. This was found despite there being nearly double the number of treatment hours in standard DBT compared to DBT-S.

The above findings are consistent with Lynch et al's (2006) proposal that DBT skills act as a mechanism to reduce ineffective action tendencies linked with dysregulated emotions.

These findings suggest that the skills component may be more important than other DBT strategies but further dismantling research is needed. The research to date has focused on the benefit of mindfulness. Further research is needed in extrapolating what other improvements the other skills provide such as does increased interpersonal effectiveness increase the use of adaptive social skills. Factoring into this however is recent prognostic research indicating that the natural course of the disorder is far more benign than previously thought (Fonagy & Bateman, 2006), with one half of symptoms being manifestations more acute in nature and the other half temperamental (Zanarini et al., 2007). Prospective studies have indicated that at 6 years up to 75% of patients requiring hospitalisation due to BPD had achieved remission based on diagnostic criteria (Zanarini, et al., 2003). Such findings hold serious ramifications for treatment modalities in terms of their respective claims of comprehensiveness as well as what actual impact treatment has on an amorphous like diagnosis.

Most therapeutic interventions, including DBT place an onus on symptomatic improvement in suicide attempts. Interventions provide causal explanations for mental states, which in turn can either provide illusionary stability on the part of the client or total rejection due to their underdeveloped model of self and others. This may lead to a further deterioration of their affective state and an increase in feelings of abandonment and dependency (Leichsenring et al., 2011). Although initial work should focus on decreasing life threatening behaviour, further work is needed in relation to temperamental symptoms by adopting more treatment specific protocols, encouraging controlled exploration and identification of emotions. For example mindfulness is one of the core skills taught in the skills component of DBT. A meta-analysis (Baer, 2003) indicated that mindfulness can increase global psychological functioning in a number of disorders including personality disorders. As DBT research has found limited improvement in more functional, temperamental states, it may be important to pinpoint the mechanisms of change and query why mindfulness within the DBT

framework does not cultivate better global functioning and what might need to be modified to change this. Prior research indicates that temperament and affective states are symptoms that are least impacted by DBT (Clarkin et al., 2007; Panos et al., 2013). Thus these areas of the disorder are in need of intervention, with BPD individuals indicating dissatisfaction with a sole focus on decreasing life-threatening behaviour but having limited effect on the affective state (Alexander, 2006). In sum, the DBT research accrued so far suggests that it can ameliorate certain aspects of the disorder but further work is needed if it is to be truly perceived as a comprehensive approach.

Schema Focused Therapy

Schema-focused therapy (SFT) is an integrative cognitive approach that also draws upon gestalt and psychodynamic models. One of the main focuses of treatment is the identification and changing of maladaptive schema which activate poor coping strategies. These trait-like early maladaptive schemas are mapped into treatment and collaborative reformulations are developed with the client (Young, Klosko & Weishaar, 2003). Eighteen early maladaptive schema have been reported and fall under five key areas (impaired autonomy, disconnection, impaired limits, limited self-expression and undesirability; Schmidt, Joiner, Young & Telch, 1995). A further focus of treatment concerns schema modes, state like emotional responses that capture the fluctuating mood states of individuals with BPD. It is proposed that once a maladaptive schema is triggered, an individual's coping response results in schema mode activation.

SFT uses a number of specific experiential, cognitive and behavioural techniques. The techniques are underpinned by a therapeutic relationship based on the 'limited reparenting' and 'empathic confrontation' concepts. This involves the therapist providing a caring, validating, appropriate, parent-like relationship with the client (Sempértegui,

Karreman, Arntz & Bekker, 2013; Fassbinder et al., 2016). Therapists can also reparent the client through their behaviours such as appropriate self-disclosure and use of check-in calls (Kellog & Young, 2006). SFT also deploys experiential techniques that deploys imagery and chair work. The former involves the client closing their eyes and bringing upsetting images and memories from the past. The therapist— employing the healthy adult mode—then enters into childhood scenes and protect and support the abandoned/abused child. After the therapist has done this, patients take on the healthy adult role by entering into the image, protecting and affirming the child modes (Kellog & Young, 2006). The chair work involves "empty chair" and two-chair techniques providing the client and therapist to have a dialogue among the various modes. This allows for the BPD client to conceptualise the critical or punitive voice as outside and separate from their core self.

Empirical Evidence

Although SFT was first described in the literature in the 1990's it was not until the mid-2000's that the first randomised controlled trial was published. The last decade has seen an increase of SFT research especially in the Netherlands and United Kingdom. SFT has provided preliminary evidence of its therapeutic and cost effectiveness (van Asselt, et al., 2008), showing promise in attempting to provide global recovery in both temperamental and acute states. Jacob and Arntz (2013) completed the first SFT specific meta-analysis (including one case series, two open trials and two randomised controlled trials). The meta-analysis reported large effect sizes in decreasing general psychopathology and BPD specific difficulties. The study specified that larger effect sizes were associated with treatment duration of between 18 months and 3 years.

A case-series of studies in Norway indicated the effectiveness of individual SFT (Nordahl & Nysæter, 2005). The six clients showed improvements on all outcome measures,

with large effect sizes reported for five of the individuals. Further work by Giesen-Bloo et al. (2006) comparing Transference Focused Psychotherapy (TFP) to SFT indicated that the latter was a significantly more effective treatment than TFP. The intervention improved both borderline personality specific symptoms and more general psychopathology as measured by a broad range of outcome measures. On all outcomes, patients of SFT showed a larger treatment effect, in areas such as impulsivity, identity disturbance, fear of abandonment, parasuicidality, quality of relationships and dissociative and paranoid ideation. Four year follow- up study found improvement still evident (e.g., 52 SFT vs. 29% TFP recovery). Reduction of seven of the nine BPD symptom criteria gives further credence to SFT's claims of a broader focus than other specialized treatments for BPD. However the study's lack of a control condition is a critical limitation as neither treatment modality had previously demonstrated efficacy (Pearce, 2007). Future research may benefit from exploring the relative efficacy and effectiveness of different evidence based treatments, as well as providing information on the possible different routes of symptom change and their maintenance (Clarkin et al., 2007).

From the Giesen-Bloo study, Spinhoven et al. (2007) reported that the quality of the therapeutic relationship was a crucial element that directly impacted on attrition rates and clinical outcomes. A further RCT study indicated that a 30 week SFT programme produced clinically and statistically significant improvements in a range of temperamental and acute measures in an all-female sample (Farrell et al., 2009). Fifteen of the 16 clients in the schema group reached BPD remission compared to 75% of individuals in the control group still retaining the BPD diagnosis. The study provided evidence of improved global functioning, with large effect sizes reported. This finding tentatively indicated that SFT focus may go beyond solely symptomatic remission, with emphasis on the affective as well as the cognitive level. This finding was further strengthened by results from a three pilot study of SFT in an

inpatient setting (Reiss et al., 2014). Results indicated improvement in BPD and global psychopathology with large effect sizes noted.

SFT mechanisms of change

Most of the research into SFT has focused primarily on questions of effectiveness (Sempértegui et al., 2013). In contrast, research into the proposed mechanisms of change has been mainly theoretical in nature, assuming that SFT reduces maladaptive early schema and modes. A review by Taylor, Bee and Haddock (2016) included 12 studies that specifically measured schema change arising from SFT. Of the 12 studies, seven focused on personality disorders, four specifically on BPD. All seven of the studies indicated significant reductions in personality disorder symptomology as well as schema reduction, as measured by differing versions of the Young Schema Questionnaire (Young & Brown, 1990). The findings indicate that modification of early maladaptive schema predict a reduction in BPD symptomology. The findings of the review are tempered somewhat as all but one of the BPD studies rated as low quality when assessed for methodological rigour. Further correlational research is needed as there is a lack of mediation analytical studies pinpointing schema change as the core mechanism of change. Dismantling studies are required in highlighting what techniques drive schema change. Clients in the Nordhal and Nysæter (2005) study reported that the schema conceptualization, therapeutic relationship and experiential techniques as the most beneficial elements but no formal statistical analysis were performed to corroborate this information.

The number of conceptual articles indicating the possible effectiveness of SFT far outweighs an actual evidence-base. It could be argued that the dissemination of the

efficacy/effectiveness claims goes far beyond what might be reasonably concluded in the available clinical outcomes. The empirical evidence on the effectiveness of each of the elements forming SFT is scarce requiring further study (Sempértegui et al., 2013). The utility of SFT with a range of differing personality disorders is another positive development as it provides an opportunity to dismantle the treatment, seeing which components are effective with differing personality disorders (Bamelis et al., 2014) It is important that further evidence is accrued in strengthening these preliminary findings through the use of both naturalistic and randomised controlled trial. Despite such limitations, SFT provides further evidence, albeit tentative, that utilising an integrative model can help develop a truly comprehensive intervention.

Similarities and differences between DBT and SFT

There are a number of commonalities between both DBT and SFT. Both draw from the CBT tradition. Each therapy posits that emotional dysregulation is due to invalidating early life experiences that interplay with biological predispositions. The therapies also place a premium on a warm, validating therapeutic relationship as key in foster recovery. Structurally, DBT provides a fixed hierarchy of treatment goals, with life-threatening behaviours prioritised, next to therapy interfering behaviours followed by decreasing behaviours that interfere with quality of life. SFT provides a more flexible hierarchy with a focus placed on dominating modes. SFT has also adopted after session availability (phone calls and emails) and group case consultations that are key treatment strategies in DBT. However the use of such calls differs between the therapies. DBT emphasises that telephone consultations are used primarily for crisis intervention and to help clients generalise DBT skills. In contrast, SFT telephone consultations involve helping the client develop appropriate boundaries while also promoting the healthy adult mode.

Both therapies also differ fundamentally on the acquisition of emotional regulation skills. DBT views BPD symptomology as primarily arising from a skills deficit. DBT focuses on the acquisition of emotional regulation skills as a key treatment goal (Fassbinder et al., 2016). SFT focuses emotional regulation from a differing perspective, through an emotion focused therapy prism. SFT views emotional regulation as heavily dependent on an emotional-relational correctional experience, provided through the therapeutic relationship, with no specific regulatory skills taught. The therapies also differ in how they integrate early adverse childhood experiences. DBT provides psychoeducational information and validation while SFT takes a more comprehensive approach, linking maladaptive schemas to early life events and providing a wider focus on biographical information in understanding current maladaptive behaviours and coping strategies. SFT also employs imagery based work to evoke affect and change cognitions. This involves the therapist entering the imagined scene using a healthy adult mode to help the client reprocess an early traumatic experience. DBT distress tolerance employs some imagery work but the focus of this is on helping the client visualise a relaxing situation to reduced distress. Finally SFT's conceptualization relies on interpersonal schemas in contrast to DBT and its focus on cognitive-affective triggers that lead to emotional dysregulation (Dimaggio, 2015).

Mentalization-Based Treatment

The concept of mentalization relates to the affective and interpersonal understanding of both other people and self (Allen, Bateman & Fonagy, 2008; Choi-Kain, & Gunderson, 2008), which in turn helps make sense of the social world. Robust mentalization entails an individual conceptualising and managing a diverse set of not only their own thoughts, desires and intentions as well as that of the other person (Choi-Kain, Albert & Gunderson, 2016). A crucial tenet of the approach is that the capacity to mentalize develops in early childhood and that deviations in the development from this may result in various forms of psychopathology,

such as personality disorders (Bateman & Fonagy, 2004; Bateman & Fonagy, 2013). MBT is a psychodynamically oriented treatment derived from attachment theory. The MBT conceptualization suggests that affective, identity and impulsive borderline clusters cause an imbalance of self-structure. Treatment focuses on stabilising the self-structure by creating a coherent self-image through reformulation of internal representations (Bateman & Fonagy, 2008a). MBT focuses on strategies that help the individual maintain or stabilise mentalization which can often go off-line, especially when hyperactivated within the context of attachment relationships. MBT therapists adopt a curious, not knowing stance which encourages clients to adopt a similar position in order to reflect and think on their own mindsets and that of others in midst of interpersonal interactions. The goal of these techniques is to encourage the client to generate alternative perspectives. Insight is not the goal of MBT; instead techniques hope to help the client foster a greater capacity for meaningful and realistic perspectives (Choi-Kain et al., 2016). Recent elaborations have stressed the importance of epistemic trust, that is, trust in the authenticity and personal relevance of the communication provided by the communicator. Mentalization has been cited as key in developing epistemic trust and broader social learning (Fonagy & Allison, 2014).

Empirical Evidence

As of 2016, there has been no meta-analysis completed with a sole focus on MBT. An initial RCT indicated that an inpatient MBT programme, when compared to general psychiatric services, was superior in decreasing self-harm, psychiatric admissions, as well as improving self-report ratings of anxiety, depression and interpersonal functioning (Bateman & Fonagy, 1999). An 18-month (end of intensive treatment) follow up study reported that such benefits were not only maintained but increased substantially during the 18-36 month time frame (Bateman & Fonagy, 2001). However, improvements may not have been solely attributable to the initial intensive treatment but as a result of a maintenance outpatient group.

Five years after all mentalization treatment was completed and 8 years since initial inpatient treatment, the beneficial effects of the intervention were still present in a number of outcome measures, including suicide attempts, global functioning, with moderate deficits in social and occupational functioning when compared to treatment as usual (Bateman & Fonagy, 2008b). Benefits were also found regarding general psychopathology and overall functioning in the outpatient sample. There are a number of weaknesses in such follow-up studies, most noticeably an allegiance effect that may limit conclusions. Subsequent research (Bateman & Fonagy, 2009) has mirrored the initial positive findings but as in the case of other treatment modalities questions remain around the specific mechanisms of change as well as the treatments main proponents being central in design and evaluation studies. Treatment outcome of a single group 18-month day hospital MBT intervention found symptom distress, personality pathology and interpersonal functioning all improve significantly, with effect sizes ranging from moderate to very large, providing further evidence of MBT's effectiveness (Bales et al., 2012). A further study by Bales et al. (2014) found that when compared to other specialised psychotherapeutic treatments, those assigned to day hospital MBT showed very large effect sizes at 18 and 36 months. Improvements were found in a number of areas including psychiatric symptoms and personality functions. Finally, results from a RCT comprising of 85 individuals randomised either to MBT or specialist combined treatment showed that both MBT and the less intensive supportive group therapy led to significant improvements on a variety of interpersonal and psychological measures, including social functioning, general functioning and depression (Jørgensen et al., 2013). A reduction on BPD diagnostic criteria was also reported. Effect sizes were moderate to large. MBT was superior only on therapist-rated GAF after two years of treatment.

The follow-up studies are tentatively indicative of not only the long-term effectiveness of MBT but also possibly the optimal mode of treatment implementation. A

stepped approach, where an intensive initial intervention is followed by a maintenance phase of intervention, may be a factor in the long-term benefits described above. Other research (Chiesa, Fonagy, & Homes, 2006) argues that a step-down mode of treatment led to a significantly greater change when compared to treatment as usual on a number of dimensions of functioning. The question of dosage and mode of application is one relevant to all treatment modalities. Consistently it has been shown that efficacy of in-patient psychotherapy is related to both the duration of the stay and subsequent improvement (Verheul & Herbrink, 2007). However there is no consistent level of dosage that is recommended, with certain studies suggesting hundreds of hours (Giesen-Bloo et al., 2006), while others advocating a stepped-care model with optimal dosage being as low as possible but as high as necessary.

The encouraging findings from MBT suggest that this approach may have a range of 'active ingredients' that are beneficial in the treatment of BPD. The enduring benefits of MBT with personality disorders, especially in areas of interpersonal functioning and temperamental change indicate changes that are not transitory and suggestive of a modification of underlying psychological mechanisms (Shedler, 2010). Such intrapsychic changes may be a crucial factor in the long term benefits that extend beyond symptom remission. Further work is needed in specifying how increased mentalization leads to proposed long-term benefits that go beyond symptom reduction. Unfortunately, it is common that a number of mentalization based treatments do not include specific measures for mentalizing ability (often operationalised as reflective functioning), limiting knowledge of the mechanisms of change (Bateman et al., 2016). In sum, MBT provides tentative evidence of effectiveness, providing broader treatment focuses that may suggest a more comprehensive approach that not only focuses on symptom reduction but broader psychological health that in turn increases inner capacities and resources (Shedler, 2010).

Mentalization as key factor among therapies

Increasing mentalization skills has been cited as a crux in helping individuals with BPD understand their own minds and that of others. Bateman and Fonagy (2013) argue that all therapies effective with BPD may increase mentalization capacity. Recent research has posited that this translational process is a key therapeutic construct that may underpin other BPD specific therapies (Chapman & Dixon Gordon, 2015; Swenson & Choi-Kain, 2015). Proponents of mentalization have argued that it provides a common language and a factor that is universal in psychotherapy. In contrast, others have argued that metallization's use of specialist jargon complicates therapeutic techniques that are readily employed by most psychotherapies (Oldham, 2015).

The role of reflective functioning as a change mechanism is mixed. Research by Goldman and Gregory (2010) indicated that therapeutic techniques that foster identification, awareness and emotional understanding correlated with a reduction in BPD symptomology, all key tenets of mentalization. The above finding correlates with the mentalization position that therapy is effective when the client's capacity to interpret behaviours as motivated by mental states increases. However this is not unique to mentalization. Similar techniques to aid in reflective capacity are also employed by DBT, seen primarily in the use of mindfulness and chain analysis. The latter helps clients to reflect and make sense of affective storms by using a collaborative process that illuminates a range of proximal and distal factors that may be relevant in understanding the behaviour (Rizvi & Ritschel, 2014). This is similar to the pause and rewind technique in mentalization that aims to increase the clients ability to explicitly mentalize and keep another's mind in mind, increasing reflective capacity and integrating a number of differing perspectives (Allen, Fonagy & Bateman 2008). Similarly, mindfulness has also been labelled as a conceptual cousin of mentalization (Choi-Kain & Gunderson, 2008). Mindfulness and mentalization both involve attention regulation as a means of lessening impulsivity. Both also attempt to integrate affect and cognitive aspects of

mental states. The two differ in terms of mindfulness's focus on the present whereas mentalization concerns present, past and future. Mindfulness is also a self-focused process that does not bring attention to the mental states of others. Research by Goodman (2013) found that the MBT prototype (measured as reflective functioning) loaded on to both Transference Focused Therapy and DBT. The mentalizing components of DBT focused on the client's mentalization of themselves, possibly linked to mindfulness practice. The finding adds further credence to idea that enhancing mentalizing is an implicit process inherent to a number of BPD specific therapies.

Levy et al. (2006) investigated changes in reflective functioning and attachment patterns amongst 90 clients with BPD randomly assigned to TFP, DBT or supportive therapy. Those assigned to TFP were found to have made significant increases in reflective functioning and attachment security when compared to the other two therapies. TFP was associated with a greater breadth of clinical improvement. It is possible that improved treatment outcomes were associated with increased reflective functioning but the study did not analyse treatment outcomes with mechanisms of change. In contrast, Vermote et al, (2010) reported on 44 clients with personality difficulties undergoing psychodynamic therapy. Findings indicated that significant reductions in symptoms did not result with increases in reflective functioning. Differences in the timing and assessment of reflective functioning have been cited as possible reasons for the conflicting findings.

SFT views the therapeutic relationship as similar to that of the early attachment relationship. Techniques such as limited reparenting involve the therapist taking a parenting-like stance that provides a corrective emotional experience. This runs similar to mentalizing stance, a process in which the therapist adopts a not-knowing, curious stance aimed at increasing emotional clarity. This understanding of oneself and others through the processing of emotions in past relationships is important in both therapies and may increase mentalizing

capacity (Montgomery-Graham, 2016). Fonagy and Allison (2014) contend that the experience of being thought about in therapy makes the client feel safe enough to think about themselves and others and to learn. The three-part therapeutic communication system, as posited by Fonagy and Allison, changes the internal working model of attachment relationships. They suggest that it does this by firstly providing the client an understanding of their disorder. This experience of being understood and the therapist's interest in the client's reality helps the client's own capacity to mentalize which restores ability to learn from social experiences. Mentalizing in itself is not the sole therapeutic aim but is crucial in helping the client trust the potential learning from the therapeutic environment about oneself and others outside of therapy (whether this learning involves maladaptive schemas, invalidating environment or emotional dysregulation). This perceived ambiguity of purpose has been criticised by some authors who contend that proponent of mentalization offer it as a process that many different types of treatments address, while simultaneously advocating for MBT as a specialist treatment package (Fonagy & Sharp, 2015). We suggest that mentalization begets mentalization and once this capacity has increased, it is a perfect time to titrate other appropriate interventions or skills. Our own research indicates that mentalization-based psychoeducational input can increase emotional awareness and psychological mindedness by addressing deficits in identifying and describing emotions (Byrne, Bogue, Egan & Lonergan, 2016). We believe that mentalization offers fertile ground in helping clients understand the myriad of conflicting and overwhelming emotions by differentiating the mental states of self and others and thus limiting impulsivity and affect dysregulation.

Towards a more integrative perspective

It is imperative to delineate the differences between therapeutic modalities in order to assess specific components and their respective effectiveness. However in attempting to create a truly encompassing approach it may be necessary that the complementary

components of differing interventions that work are assessed in order to form an integrative framework that focuses on a range of treatment goals. It has been argued that this eclectic approach is already in use, with many treatments using techniques outside of their theoretical orientation (Livesley, 2007). Research indicates that the similarity of treatment components, such as cognitive and experiential techniques, a focus on synthesizing opposing affects and mental states, as well as utilization of treatment manuals, far outnumbers differences (de Groot et al., 2008). DBT itself is an eclectic approach that draws from cognitive-behavioural, insight-oriented, Zen and humanistic traditions (Bliss & McCardle, 2014). MBT similarly integrates cognitive, psychodynamic and relational components of therapy (Bateman et al., 2016). This accentuates the idea that overarching generic mechanisms may form the body of a comprehensive treatment dealing with core pathology. Edel et al. (2017) recently reported that the use of DBT and MBT treatment components was superior in reducing fearful attachment and in improving affective mentalization than those assigned solely to the DBT group. This finding suggests that the two approaches may complement one another and gives further credence to the common factors amongst the therapies. It is likely that transdiagnositic considerations will take priority over syndrome specific treatment guidelines (Fonagy, 2015) and a number of such generalist approaches have been developed such as Structured Clinical Management (Bateman & Krawitz, 2013) and Good Psychiatric Management (Gunderson, 2014). However theoretical unity and the application of coherent principles are seen by some as essential in any treatment plan (Bateman et al., 2007, Chapman, Turner & Dixon-Gordon, 2011) with a concern that integrative approaches employing generic components do little to highlight the specificity of component effectiveness. Research is clear that therapies without a coherent theoretical framework or established sets of principles are far less effective and more likely to fail (Abbass, Rabung, Leichsenring, Refseth, & Midgley, 2013). Thus the

compatibility of treatments need to be assessed to ensure that their respective theoretical underpinnings are not disregarded leading to a conceptual muddle with no beneficial effects.

Conclusion: Is the dodo bird still correct?

The above conclusion, reached by Luborsky, Singer and Luborsky in 1975 related to their comparative study, which found that a number of interventions were equivalent and that none were superior. This is very similar to the current situation relating to treatments for BPD, with effect sizes from both cognitively and psychodynamically oriented therapies indicating effectiveness (Stoffers et al., 2012; see Shedler, 2010 for a review of the mismatch between therapeutic aims and outcomes that may be a salient factor in the continuation of the dodo verdict). The many treatments demonstrating effectiveness is a promising development; however there are still many questions that remain unanswered. Further replicatory studies are required on the specific variables that mediate treatment effect. Future research may also benefit from moving from a focus on demonstration of outcome to a broader focus on similar and differing mechanisms of change. This may be possible through the use of comparative studies and 'adversarial collaboration' in which studies are measured against one another (Poulsen et al., 2014). It is highly likely that most treatments share generic components and that these components are more important than the treatment specific interventions (Bateman, Gunderson & Mulder, 2015; de Groot et al., 2008; Allen, Fonagy, Bateman, 2008).

A focus on the dissemination of these treatments, variations in treatment dosage and implementation difficulties would also be of value to researchers (Hutsebaut, Bales, Busschbach & Verheul, 2012). If effectiveness is to be accurately gauged it is imperative that there is a consensus as to what is to be measured, namely what outcome measures should be included. The heterogeneity of the available outcome measures limit consensus and measures do not show a robust evidence base (Sinnaeve, van den Bosch & van Steenbergen-

Weijenburg, 2015). Small sample sizes and short follow-up in clinical trials also temper conclusive findings (Bateman, Gunderson & Mulder, 2015). The renewed interest in personality disorders in adolescents may also shed further light on the phenomenology and etiology of the disorder and how differing treatment strategies at differing stages effect treatment outcome (Sharp & Fonagy, 2015). The focus concerning psychological treatments for BPD has moved on from 'does it work'. The questions that remain to be answered include how and with whom exactly.

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