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Borderline Personality Disorder Psychological Treatment: An Integrative Review

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A B S T R A C T

Borderline personality disorder (BPD) is a complex and at times debilitating mental disorder, treatment of which has eluded effective pharmacotherapy (Gunderson, 2007). Although once considered untreatable, psychodynamic therapy and cognitive therapy (two types of psychological therapies) have provided hope for better lives for patients with this diagnosis (Gunderson). The author performed an integrative review of the literature pertaining to the present role of evidence-based practice (EBP) using the *Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision* (DSM-IV-TR) definition of BPD to identify symptoms of the disorder. Thirty-eight peer reviewed articles, mostly quasi-experimental, three meta-analyses, two books, and two national psychiatric guideline websites were reviewed. BPD treatment may be successful with a variety of psychological therapies. Application of empirical studies is only part of BPD treatment considerations. Heterogeneous symptom presentation requires much professional interpersonal interaction and the literature is scant on inductive research for BPD. This review is limited to psychological aspects of BPD treatment.

Human behavior has been studied for hundreds of years and various health professions have explored personality variables which cause mental distress. One of the newer psychiatric diagnoses is borderline personality disorder (BPD). The American Psychiatric Association (2010) has published standard nomenclature of emotional illnesses in a manual called the *Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision* (DSM-IV-TR). Borderline personality disorder is one of the DSM-IV-TR medical diagnoses. BPD is medically diagnosed by the existence of at least five of nine symptomatic criteria. These are: (a) fears of abandonment; (b) unstable interpersonal relationships; (c) unstable sense of self; (d) impulsivity, which is potentially self damaging; (e) parasuicidal behavior or self mutilation; (f) affective instability; (g) chronic feelings of emptiness; (h) inappropriate anger; and (i) transient paranoid ideation or dissociative symptoms (American Psychiatric Association, 2010). However, this diagnosis does not fully describe the heterogeneity, and at times emotionally painful continuum of living with this mental illness (Bornovalova, Gratz, Levy, & Lejuez, 2010; Gunderson, 2009; Holm & Severinsson, 2008).

The community prevalence of borderline personality disorder is estimated to be between 1.4% and 5.9% (Lenzenweger, Lane, Loranger, & Kessler, 2007) and exists across cultures (Phillips, Yen, & Gunderson, as cited in Townsend, 2006). Despite its prevalence, the core psychopathology and related neurobiology remain unknown (Gunderson, 2009). Recent medical findings point to consideration of the complex neurochemical issues found in this disorder in addition to symptoms.

The public health costs to patients, families and communities are unknown and occur in many areas including use of psychiatric services, medical costs associated with behavior manifestations, divorces, and use of other public services (Gunderson, 2007; Gunderson, 2009).

These costs highlight the importance of studying current treatment therapies. Borderline personality disorder has no well defined, pharmacological treatment specific to diagnosis of BPD, psychosocial interventions remain a cornerstone of treatment (Gunderson, 2009), the present role of evidence-based practice is still evolving (Tannenbaum, 2006; Weitz & Addis, 2006). Mental health professionals may wish to consider inductive research findings for this disorder.

A philosophical underpinning of care which some mental health treatment programs have adopted is the Tidal model of mental health recovery (Barker & Buchanan-Barker, 2008). Although not specific to any particular mental illness, the Tidal model's values reflect how others might wish to be treated when in distress (Brookes, 2006). The Tidal model of mental health recovery, a quality improvement organization of philosophical underpinnings (Barker & Buchanan-Barker, 2008; Berger, 2006; Brookes, Murata, & Tansey, 2008; Swift, 2009), may provide an alternate philosophy, different from the medical diagnostic model, from which to organize mental health care. The ten essential values which underpin the Tidal model are: (a) valuing the person's story, (b) respecting the person's linguistic style, (c) developing genuine curiosity, (d) becoming an apprentice, (e) revealing personal wisdom, (f) being transparent, (g) using the person's experiences as tools, (h) crafting the step beyond the present distress, (i) giving the gift of time, and (j) knowing that change is constant (Brookes, 2006). The

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Tidal model has been found to decrease numerous public safety concerns in mental health treatment programs (Brookes et al., 2008) and is congruent with the BPD treatment therapies which will be mentioned. This paper will review the current literature on a BPD theory of development, treatment therapies, and the present role of evidence-based practice. Discussion and conclusions for mental health professionals will follow.

METHODS

CINAHL, and PsycARTICLES, databases were searched for articles on the subject of psychological treatment efficacy for BPD, which revealed thousands of references. Limiting the searches to the last five years still produced over one thousand references. Hand searches of selected article bibliographies allowed refinement of topic details. The Cochrane Database did not reveal any systematic reviews on efficacy of psychological BPD treatments from 2006 to 2011. Keyword searches, limited to peer reviewed professional journals in the last five years, resulted in 200 articles overall, of which, 38 were reviewed. Those articles which were eliminated mentioned BPD along with many other psychiatric disorder treatments without the results being separated by DSMIV-TR diagnosis. Articles which discussed various aspects of BPD or treatments specific to the disorder were included as were some which discussed alternative behavior groupings sharing some similarities to the mental distress experienced by those with the BPD diagnosis. Three meta-reviews covering specialized aspects of BPD met the inclusion criteria. The websites of the United States Department of Health and Human Services, Agency for Healthcare Research and Quality, and of the American Psychiatric Association were also reviewed. In addition, two mental health books, *Evidence-Based Psychotherapy* (2006) and *Essentials of Psychiatric Mental Health Nursing* (Townsend, 2006) were also reviewed for this paper.

BPD THEORY OF DEVELOPMENT

Mu-Receptor Findings

The complex behavioral disorder diagnosed as BPD does not have a known cause, however, biosocial and neurochemical theories are undergoing research (Gunderson, 2009; New & Stanley, 2010; Stanley & Siever, 2010). Stanley and Siever (2010) reported that patients with BPD, who self-injure, have decreased endogenous opioids, especially beta-endorphins and met-enkephalins (Stanley et al., 2010) and also found an association between a mu-opioid gene polymorphism and BPD. Prossin, Love, Koeppe, Zubieta, and Silk (2010) studied BPD patients and healthy controls and demonstrated that during neutral social stimulation, the BPD patients had more mu-opioid binding sites in the acumbens (reward center), and the amygdala, whereas the control subjects had more binding sites in the thalamus. During sad emotional states, mu-opioid receptor neurotransmission was greater in BPD patients than in control subjects. They discussed that enhancement of endogenous opioid availability was found to be greater in BPD patients during sad moods than in controls in that study. Thus, the opioid-deficit model was proposed, that self–injurers learn to cut themselves, thereby releasing endogenous opioids which stimulate the reward center (New & Stanley, 2010, p. 883). The study is significant in showing specific sites of neurochemical changes in BPD patients (New & Stanley, 2010). The study authors also report that there is a social behavior role which implicates mu-opioid receptors in regulation of emotional and stress responses (New & Stanley, 2010).

Clinical implications discussed by New and Stanley (2010) are significant. The normal mu-opioid receptor mediated rewards experienced by normal subjects during infant attachment elude BPD patients, because they may be *hard-wired* differently due to high heritability of the disorder (New & Stanley, 2010, p. 884). If BPD patients "do not have sufficient endogenous opioids, then the continual craving for relationships and heightened reaction to their loss is understandable," (New & Stanley, 2010, p. 884).

The mu-receptor and endogenous opioid deficit research could impact treatment of BPD enormously. The frustration of therapists in treating BPD and the stigma of diagnosis could be diminished if a neurochemical cause could be found (New & Stanley, 2010, p.884). Potentially pharmacotherapy could be investigated based on any relevant findings as well.

Diagnostic Bias

Although diagnosed in women more than men, by a 3:1 ratio, Bjorklund (2006) found that there is no significant difference in the number of men and women with BPD diagnosis. Lahey (2009) reviewed that neuroticism, a Freudian term sometimes used to describe BPD symptoms, and a construct for worry, anger, sadness, hostility etc. is heterogeneous with no gender predisposition. Lahey's paper looked at several mental disorders including BPD in the broader context of neuroticism, thereby limiting generalization to BPD. Bjorklund explored the literature concerning the greater number of women diagnosed with BPD than men and found hierarchical power, and other cultural factors promoted diagnostic bias. Recognition of this is important when drawing conclusions based on gender for this complex illness. Wood and Tracey (2009) studied the presence of diagnostic overshadowing, that is when one diagnosis overshadows and diminishes recognition of additional diagnoses. Conclusions were that diagnostic overshadowing was prevalent in the sample studied but could be minimized with additional feedback training. Since the diagnosis of BPD is based purely on behavioral criteria, recognition of the possibility of diagnostic overshadowing may limit validity of empirical studies, a cornerstone of EBP.

TREATMENT THERAPIES

Treatment efficacy encompasses psychosocial therapies including psychodynamic and dialectical treatments (Harvard Medical School, 2006). Both of these are important to consider in treating BPD. The literature shows evidence for effectiveness of both types of therapy for BPD and is inconclusive about which may be the most important. Because of the process orientation of BPD, examination of a deterioration model is presented, and a less extensively documented alternative way to organize treatment is mentioned with latent class analysis as the diagnostic focus.

Psychodynamic Therapy

Leichsenring and Leibing (2003) did a meta-analysis of the effectiveness of two types of psychological therapy commonly used for treatment of BPD. The meta-analysis compared the effectiveness of psychodynamic based psychotherapy and cognitive based therapy for personality disorders. The Leichsenring and Leibing meta-analysis is the most recent, and reported both psychodynamic and cognitive therapies as being effective long term. In another study done by Leichsenring and Leibing (2004), psychodynamic therapy was reported as being effective therapy in the short term. A limitation of the 2004 Leichsenring and Leibing study is its discussion about the broad category of personality disorders.

Additional psychodynamic treatment considerations are whether patients with other psychological co-morbidities should be included in empirical study samples and whether DSM-IV-TR symptom remission is the best way to study and treat BPD patients (Gunderson, 2009; Stone, 2010). The literature was inconclusive about inclusion of co-morbidities in studies of BPD.

Dialectical Therapy

This cognitive based therapy consists of four components which are individual therapy, telephone contact, therapist consultation with the group therapist and practical, adaptive skills training (Linehan, 1993a, b). The group skill training modules included core mindfulness, interpersonal effectiveness, emotion modulation, and distress tolerance. Therapy originally lasted for eight weeks. Bowen et al. (2006) addressed the components and modules for this treatment of BPD and concluded that the treatment is efficacious in the short term.

Linehan's (1993a) landmark work in developing dialectical behavior therapy remains a cornerstone for cognitive-based therapy for BPD. Linehan and colleagues have done two randomized controlled trials (RCTs) since 1993 and several one and two year longitudinal follow-up studies on females diagnosed with BPD (Harned et al., 2009; Linehan et al., 2006). However, these studies were conducted in small sample groups and attrition limited conclusions as well. Feigenbaum (2007) reviewed the literature for evidence of effectiveness of dialectical behavior therapy and found it to be effective for BPD patients. Harned et al. (2009) reported that both dialectical therapy and non-cognitive psychotherapy community treatment by experts were efficacious in treating anxiety, depression and eating disorders, but at one year, the women substance abusers with BPD who were treated with dialectical therapy were more likely to have full remission from the substance abuse than those receiving non-cognitive based psychotherapy. McHugh and Barlow (2010) reviewed the evidence based status of the dissemination and implementation of dialectical therapy and found it to be widespread in the United States and internationally.

Deterioration Model

An important consideration with chronic illness such as BPD is the process orientation or continuum of functionality of those afflicted from normal to psychopathologic states (Edens, Marcus, & Ruiz, 2008). Because BPD is difficult to treat, a model which systematically detects patient psychological deterioration is a pragmatic consideration. The literature did not reveal many articles dealing with this in the past five years. One study of interest was tested by Swift, Callahan, Heath, Herbert, and Levine (2010), in which 135 university students participated in testing an exploratory model hypothesized to be sensitive in detecting client deterioration. The model showed efficacy in this empirical study and discussed the limitations of generalizing the results to untested groups of both patients and therapists. Nevertheless, a viable deterioration detection model seems like a good tool to develop.

Latent Class Analysis Model

Bornovalova et al. (2010) explored the use of an alternative grouping of behaviors in BPD among 382 substance users, with replication and extension of previous studies. This model has been useful in categorizing mentally ill individuals in more behavior focused psychological treatment than the DSM-IV-TR method of symptom organization.

The Present Role of Evidence Based Practice

Polit and Beck (2008) discussed some of the paradigm shifts in thinking about patient care, which have resulted from the increasing embracement of evidence-based practice. The level I systematic review of random controlled trials (RCTs) offers a logical algorithm from which to consider empirical treatments. They argued, however, that not all research is equally rigorous and that quality assessment of RCTs is still the responsibility of peer researchers and clinicians. Polit & Beck (2008) also noted that the hierarchy of levels of studies pertains to empirical research, while inductive research and alternative models for using evidence are not as clearly addressed in the EBP model. The aspects of patient individualization, treatment preference, and clinician expertise must inform decisions made by practicing social scientists (Polit & Beck, 2008).

Therapist and Patient Considerations

Psychological BPD treatment includes only psychosocial interventions, measurement of treatment effectiveness must allow for the individualized and personal aspects of the professional therapeutic relationship between patient and therapist. Barriers include patient manipulation of the therapeutic relationship, called splitting (Townsend, 2006) which may make discussion of pertinent topics discouraging for the therapist and therapist burnout can also be an issue (Swift, 2009).

Evidence-based practice principles of patient preference and clinician expertise are integral to the success of psychological therapy (Carter, 2006). In addition, Stone (2010, p. 618) makes the following comments about patient variables which affect the application of evidence based practice: One of the most formidable impediments to outcome research in borderline personality disorder is the broad diversity of potential contributing factors. This heterogeneity of "cause" stems from such factors as family history of emotional illness; birth complications; early verbal, physical, or sexual abuse (which may vary in onset age, intensity, duration, relationship of the offending party); intelligence; talent; physical appearance; accompanying traits from other personality and symptom disorders; socioeconomic status; and sociocultural differences. We then see a similarly bewildering variety in the clinical expression of the borderline personality disorder that follows. This variety is not attributable merely to the polythetic nature of the DSM diagnosis: it is easy to find two patients with borderline personality disorder with an identical array of the defining items who differ markedly in socioeconomic status, abuse history, talent, friendliness versus hostility, and so on, and whose long-term outcomes are widely disparate.

With all of these variables involved, BPD treatment effectiveness research becomes complicated. Questions arise about how to implement evidence-based practice based mostly on random controlled trials in treatment of BPD.

Random Controlled Trials and Individual Therapy

Although evidence based practice clearly must include pragmatic, individual patient and clinician considerations as detailed in the landmark work of Sackett, Rosenberg, Gray, Haynes, and Richardson (1996), the random controlled trial remains an established focal point from which to consider efficacious innovations. Dialectical treatment of BPD has been documented as effective in RCTs (Linehan, 1993a; Linehan et al., 2006) and the practical application of dialectical behavior therapy was operationalized by publication of a practice manual soon after the initial study (Linehan, 1993b). Proposed the need for systematic evaluation in clinical psychology work which preserves individual clinical judgment while adding this as a tool from which to build thematic evidence for treatment effectiveness inductively.

Evidence Based Practice Guidelines

Two national organization websites revealed EBP guidelines for treatment of BPD. The 2010 United States Health and Human Services Department, Agency for Healthcare Research and Quality (AHRQ) evidence-based practice guideline website was reviewed for BPD. The recommendations were developed from an international consensus for treatment guidelines which included listing dialectical therapy as one of several acceptable treatments. The United Kingdom took the lead in authoring this document based on a health economics model which was then agreed upon by the AHRQ and adopted for the United States. The American Psychiatric Association website also listed guidelines for treatment of BPD but noted that they were from 2005 and no longer considered current (2010).

DISCUSSION

At present, there are several psychological treatments for patients with BPD including psychodynamic therapy and cognitive-based dialectical therapy which each show efficacy in this literature review. However, research is still at a relatively beginning stage concerning most aspects of BPD. Evidence-based practice hierarchies with empirical studies at the pinnacle do not fit well for highly individualized patient and therapist based modes of therapy required for treatment of the heterogeneous manifestations of behavior noted in BPD.

Other topics in BPD treatment are whether patients with other psychological co-morbidities should be included in empirical study samples and whether DSM-IV-TR symptom remission is the best way to study and treat BPD patients (Gunderson, 2009; Levy, 2009; Stone, 2010). The literature is inconclusive about how to best study BPD patients.

An individual therapist's skills, as well as the process orientation of BPD affect management of mental distress for each patient. The Tidal model may be a useful philosophical underpinning for BPD care which takes into account the process orientation as well as the belief in the individual patient's role in recovery (Barker & Buchanan-Barker, 2008).

The cost of treatment is an economic and ethical issue (Levy, 2009). Practical considerations must include how society morally chooses to treat its mentally ill populations. Therapists also require additional education to be considered competent in practicing dialectical behavior therapy (Dowd, Clen, & Arnold, 2010; McHugh & Barlow, 2010) which has economic implications for these clinicians.

BPD treatment outcome literature should include logistical considerations of where therapy should take place, with whom, and for how long. With the trend toward outpatient therapy and away from inpatient settings in recent years, several different therapy settings have become common. The general practitioner may elect to treat mental illnesses, the community mental health centers, and psych specialty hospitals may be available or even incarcerated patients may receive therapy in jail if available (Levy, 2009). The literature is inconclusive about the best treatment settings for BPD.

The literature was limited concerning long-term prospective outcome studies of patients with BPD. There were few studies about alternative distressful behavior groupings and the treatment with various therapies. Furthermore, some studies which discussed treatment of personality disorders did not specifically pertain to those diagnosed with BPD, thereby limiting generalization. Bettencourt, Talley, Benjamin, and Valentine (2006) reviewed the literature concerning personality trait differences between those who became aggressive when provoked and those who became aggressive in neutral situations as well, taking the human behavior analysis to a different viewpoint. Although BPD diagnosis was not mentioned, therapy for aggression may well be useful in treatment of BPD but needs to be documented in the literature.

Additionally, dialectical therapy, which was specifically developed for treatment of BPD, may be effective in treatment of some persons not diagnosed with BPD. Iverson, Shenk, and Fruzzetti (2009), did a pilot study using dialectical therapy for twelve weeks in female domestic abuse victims and found it to be efficacious in treating suicidal patients.

This paper reviewed the usefulness of several mental health treatments for BPD but the list is certainly not inclusive without also considering the large role played by the professional relationship between the patient and the therapist. Additionally, the present prominence of evidence-based practice studies with the random controlled trial considered the strongest level of study and the need to adjust the paradigm of BPD treatment to include inductive themes based on clinician and patient focused research has been discussed.

CONCLUSION

The lack of documented effectiveness studies for BPD treatments for large samples is partly due to the individualization of care required in this entirely psychosocially based, heterogeneous group of behaviors. Future literature reviews should explore the effectiveness of various community treatment programs and settings and whether any are more effective settings for treatment of BPD than others.

New medical research findings have introduced a neurochemical model which may provide an explanation for the self mutilation and exaggerated emotions seen in some individuals with BPD. If accurate, the model could reduce some of the stigma associated with the diagnosis and broaden understanding of how to better plan treatment for some BPD patients.

In studying the literature about BPD development theories, diagnostic biases, treatment models and the present role of evidence-based practice in relation to this set of behaviors, the future may become clearer with inductive methods of data collection and development of community based interventions based on thematic discoveries. In addition, the evidence-based practice admonition to individualize patient care becomes paramount in assisting patients to increase their quality of life by undergoing therapy for BPD.

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