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## **Psychosocial Interventions for Bipolar Disorder: A Review of Recent Research**

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Bipolar disorder is an affective disorder characterised by mood episodes which can cause considerable impairment in everyday life. This study outlines recent research on psychosocial interventions for this illness, focusing on psychoeducation, interpersonal and social rhythm therapy, cognitive behaviour therapy and family focused treatments. The basic components of these interventions are discussed along with evidence for effectiveness and an examination of possible limitations. The current research suggests there are a number of different psychosocial interventions which appear to be effective for reducing relapse, alleviating affective symptoms and improving functioning. However, the evidence base for some of these is relatively limited at present.

**Key words:** Bipolar disorder, intervention, psychosocial, CBT, psychoeducation

## INTRODUCTION

**Symptoms and diagnoses:** Bipolar disorder is an affective disorder, or mood disorder, characterised by episodes of depression combined with episodes of hypomania or mania. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, 4th edition text revision (DSM-IV-TR, American Psychiatric Association, 2000) states that a hypomanic episode consists of an elated or irritable mood over 4 days or more. Within this change in mood are specific symptoms such as racing thoughts, a reduced need for sleep, increased talkativeness and involvement in impulsive activities such as reckless business investments and sexual promiscuity (American Psychiatric Association, 2000). An individual who experiences episodes of both hypomania and mania is diagnosed with bipolar II disorder. A manic episode has similar symptoms but is more severe with disrupted functioning at work or socially and the possibility of psychotic symptoms and hospitalisation. Those who experience multiple episodes of mania and usually depressive episodes as well are diagnosed with bipolar I disorder (American Psychiatric Association, 2000). It is important to note that there are a number of controversies in terms of the diagnostic criteria for bipolar disorder, such as the minimum duration required for hypomania and the relatively unclear distinction between hypomania and mania (Richardson, 2009). Mixed episodes can also occur where manic or hypomanic symptoms occur alongside symptoms of depression. However, it is important to note that the mixed episodes category may be removed from the 5th edition of the DSM (see [www.dsm5.org/ProposedRevisions/](http://www.dsm5.org/ProposedRevisions/) for details). Individuals can also be diagnosed as rapid-cycling where there is a particularly short time between affective episodes (American Psychiatric Association, 2000).

**Epidemiology:** Bipolar disorder is usually diagnosed first in adults, but is increasingly diagnosed in children and adolescents in the United States. However, this diagnosis is controversial outside of the US, thus there are differences in the estimates of its prevalence in young people in other countries (Soutullo *et al.*, 2005). Estimates of the prevalence of bipolar disorder in adults vary; Ten Have *et al.* (2002) estimated a lifetime prevalence of 1.9%, with a 12 month prevalence of 1.1%. Mitchell *et al.* (2004) estimated lower at a 12 month prevalence of 0.5% whilst Merikangas *et al.* (2007) estimated a lifetime prevalence of 1% for bipolar I disorder and 0.8% for bipolar II disorder, with an additional 2.4% of the population with subthreshold symptoms. Sub-clinical

symptoms of hypomania are relatively common in the general population and are related to sub-clinical psychotic symptoms (Richardson and Garavan, 2009a), traits of impulsivity and risk-taking propensity (Richardson and Garavan, 2010a) and substance use (Richardson and Garavan, 2010b). In addition many of those diagnosed with unipolar depression may have undetected hypomanic symptoms suggestive of a diagnosis of bipolar II disorder (Benazzi and Akiskal, 2003; Richardson and Garavan, 2009b).

**Impact of bipolar disorder:** Bipolar disorder is associated with reduced quality of life, impaired functioning and high rates of marital disruption as well as an increased risk of suicide attempt (Mitchell *et al.*, 2004; Ten Have *et al.*, 2002). In addition, bipolar disorder has high levels of psychiatric co-morbidity (Merikangas *et al.*, 2007; Mitchell *et al.*, 2004). Bipolar disorder is also associated with particularly high levels of drug and alcohol use, especially in certain sub sets of patients such as those who are younger and those who have a co-morbid anxiety disorder (Richardson, 2010). The use of drugs such as cannabis may also increase the severity of affective symptoms (Richardson, 2010).

Due to these negative outcomes associated with bipolar disorder, it is important for clinicians' to consider effective treatments. A number of pharmacological treatments are available, however these are associated with a number of potential side effects (Al-Omar, 2005; Malhi *et al.*, 2010). The aim of this study is therefore to review recent research on the effectiveness of psychosocial interventions for bipolar disorder.

## PSYCHOEDUCATION

**Evidence for clinical efficacy:** Psychoeducation aims to educate bipolar disorder patients about the illness, usually in groups. Specific areas often covered are medication, detecting early or prodromal symptoms, stress management and relapse prevention techniques. A substantial body of evidence supports its potential as an intervention, with structured group psychoeducation being more effective than unstructured group support (Colom *et al.*, 2003b). Psychoeducation has been found to lead to reduce rates of relapse (Colom *et al.*, 2003a, b, 2009a) and increase the time between episodes (Colom *et al.*, 2003b, 2009a), as well as reduce the time spent in affective episodes (Colom *et al.*, 2009a). It also appears to reduce the number and duration of hospital admissions (Colom *et al.*, 2003b, 2009a). Group psychoeducation may also improve quality of life at least in terms of physical functioning and general satisfaction

(Michalak *et al.*, 2005). The effectiveness appears to be for hypomanic and manic episodes and well as depressive episodes (Colom *et al.*, 2003b, 2009a) and benefits are maintained up to 5 years later (Colom *et al.*, 2009a). In addition group psychoeducation appears to be cost-effective; though it costs money to implement in the short term it saves money in the long run due to fewer inpatient stays (Scott *et al.*, 2001). Recent work has tried to make psychoeducation more easily accessible: manualised interventions have been developed which can be delivered by mental health professionals with little experience in the area (Sorensen *et al.*, 2007). In addition, a number of research groups have begun to adapt psychoeducational interventions for an online format such as beating bipolar (Smith, 2010) and recovery road (Barnes *et al.*, 2007). However, there is no evidence on the clinical effectiveness of these as of yet.

**Mechanisms of change:** Research is also beginning to demonstrate potential mechanisms whereby psychoeducation improves outcomes for those with bipolar disorder. Clients appear to appreciate the development of working relationships with clinicians' and being able to develop a personalised approach to illness management which is in line with their beliefs about bipolar disorder (O'Connor *et al.*, 2008). It also improves knowledge about medication (Colom *et al.*, 2003a), but goes beyond improving compliance with medication as it enable healthy lifestyles to develop (Colom *et al.*, 2003a). Adding sessions on developing life goals appears to enhance psychoeducational interventions (De Andres *et al.*, 2006), thus it may have a beneficial effect by creating targets for improvement in patients. Psychoeducation may also increase the ability to notice warning signs of oncoming episodes and cope with these effectively (Colom *et al.*, 2003a). As a result, it has been suggested that psychoeducational interventions should include personalised manuals to help identify these early warning signs and prevent relapse (Sorensen *et al.*, 2007). Psychoeducation appears to change locus of control such that clients feel that health professionals can help them manage their illness (Even *et al.*, 2010). Similarly research has shown decreased hopelessness and an increased perceived ability to cope with the illness after such interventions (Sorensen *et al.*, 2007). It may also change representations of bipolar disorder into a conceptualisation as a medical illness (Even *et al.*, 2010), thus potentially reducing stigma and enhancing a sense of control over the condition.

**Limitations of psychoeducation:** A number of studies have suggested potential limitations of psychoeducation

which need to be taken into account. Research has found that illness severity affects outcomes; those with more episodes before intervention have poorer outcomes (Colom *et al.*, 2010). An analysis of 5 year outcomes found that those with more than seven episodes prior to treatment had no benefit in terms of duration between episodes and those who had experienced more than 14 episodes did not have a reduced time spent in affective episodes (Colom *et al.*, 2010). In addition, a greater number of previous episodes reduced the benefit of psychoeducation on the risk of hypomanic, depressed and mixed episodes specifically (Colom *et al.*, 2010). There is also evidence that views about bipolar disorder influence outcome from psychoeducation; Sorensen *et al.* (2007) found that those who saw their previous manic episodes as positive took longer to improve. There may be certain types of bipolar patient who are less likely to attend psychoeducation; Even *et al.* (2007) found that inpatients were more likely to take part if they were younger, more educated and had been ill for less time. In addition, those with an external locus of control, i.e. they believed that they could not control what happened to them, were less likely to take part (Even *et al.*, 2007). The majority of interventions have been developed for use with both bipolar I and bipolar II disorder patients together. Whilst psychoeducation appears to benefit bipolar II specifically, it has been suggested that bipolar II patients need specifically designed interventions (Colom *et al.*, 2009b).

#### **INTERPERSONAL AND SOCIAL RHYTHM THERAPY**

Interpersonal and Social Rhythm Therapy (IPSRT) is based on theory and research suggesting that relapse in bipolar disorder is often caused by disrupted social routines or rhythms and stressful major life events (Goodwin and Jamison, 1990; Shen *et al.*, 2008). IPSRT combines behavioural techniques with elements of interpersonal therapy in an attempt improve medication adherence and assist in the development of regular routines and sleep pattern, thereby reducing the risk of relapse (Frank *et al.*, 2000). A moderate body of evidence provides support for its effectiveness with bipolar disorder. Frank *et al.* (2005) found that those who received IPSRT during an acute affective episode had longer in between episodes. IPSRT also led to more stable social rhythms, which in turn reduced the risk of relapse (Frank *et al.*, 2005). Swartz *et al.* (2009) found reduced depression and mania, with 29% achieving a full remission. IPSRT also appears to improve occupational functioning (Frank *et al.*, 2008). Some research has

found that IPSRT alone is effective without medication (Swartz *et al.*, 2009), whereas other authors have suggested that it is combined with medication for treatment (Frank *et al.*, 2009). Recently, it has been adapted for use with adolescents, focusing on issues around development at that age (Crowe *et al.*, 2008). Hlastala *et al.* (2010) found high levels of completion and satisfaction with IPSRT in adolescents as well as reduced severity of affective symptoms and improved functioning. However, some research has emphasised the limitations of IPSRT; Frank *et al.* (2008) found that the effects on functioning were not maintained 2 years later and that it is more effective for women than men.

### **COGNITIVE BEHAVIOUR THERAPY**

**Evidence for clinical efficacy:** Cognitive Behaviour Therapy (CBT) has only relatively recently been developed for bipolar disorder. It includes a number of elements such as developing treatment goals and using cognitive-behavioural techniques to address dysfunctional thoughts and beliefs, and the development of emotional management and relapse prevention techniques (Scott *et al.*, 2001). A considerable body of evidence supports its effectiveness as an intervention for bipolar disorder. Cognitive therapy has been found to reduce the number of subsequent episodes (Lam *et al.*, 2000, 2003), with as much as a 60% reduction in relapses (Scott *et al.*, 2001). It also appears to lead to a shorter duration of episodes (Lam *et al.*, 2003). Lam *et al.* (2005a) found that, over 30 months, those with bipolar I who had cognitive therapy spent 110 less days in an affective episode. Similarly, Zaretsky *et al.* (2008) found that CBT halved the number of days spent in an episode of depression over the following year. It has also been shown to lead to fewer hospitalisations (Lam *et al.*, 2003) and improve affective symptoms (Ball *et al.*, 2006; Lam *et al.*, 2003, 2005b). In addition, there appear to be reduced fluctuation between mood states (Lam *et al.*, 2000, 2003) and CBT may be effective for those with rapid-cycling bipolar disorder (Reilly-Harrington *et al.*, 2007). It may also improve functioning (Lam *et al.*, 2000, 2003, 2005b; Patellis-Siotis *et al.*, 2001; Scott *et al.*, 2001), reduce hopelessness (Lam *et al.*, 2000) and increase the ability to cope with prodromal symptoms (Lam *et al.*, 2003, 2005b). CBT appears to improve compliance with medication (Lam *et al.*, 2000, 2005b) and reduce the amount of medication needed (Zaretsky *et al.*, 2008). Although cognitive interventions may be costly to implement, they appear to save money in the long term due to reduced service use (Lam *et al.*, 2005a). Attempts to make CBT more cost-effective have led to the

development of computerised interventions with elements of CBT, however there is no outcome data available at this time (Barnes *et al.*, 2007).

**Age and culturally sensitive CBT:** Recent work has begun to examine the potential for CBT to assist in the management of bipolar disorder in children and adolescents. Pavuluri *et al.* (2004) developed an intervention consisting of CBT for the child individually as well as family-focused CBT, finding reduced severity of manic, depressive and psychotic symptoms, as well as improved aggression and functioning. West *et al.* (2009) developed a similar intervention for children as young as 12, finding improved functioning and mania. However, there was no effect on depressive symptoms and little impact on parental stress (West *et al.*, 2009). Other work has found that CBT reduces parent rated, but not self-reported symptom severity (Feeny *et al.*, 2006). There has been little work trying to develop CBT for use with older adults with bipolar disorder, though case studies appear to support its effectiveness (Nguyen *et al.*, 2007). The majority of work has used CBT in a Western context and there has been little work trying to make CBT culturally sensitive. However, Masoudi *et al.* (2009) recently used CBT for women in Iran with bipolar disorder, finding reduced mania and improved awareness of signs of relapse.

**Limitations of traditional CBT:** Despite a strong evidence base, research has indicated that CBT can be limited in certain ways. For example, Lam *et al.* (2005b) observed that the effects of CBT only reduce relapse rates in the first year after treatment, with no long term benefit. It is also unclear which specific type of affective episode is reduced by CBT; Lam *et al.* (2003) found an impact on depressive and manic episodes, but not hypomanic episodes, whereas, Lam *et al.* (2000) found improvements in hypomanic episodes, but not manic or depressive episodes. Other work has failed to find a reduction in long term service use (Lam *et al.*, 2005b; Zaretsky *et al.*, 2008). There may also be certain subtle characteristics which influence whether CBT will be effective; Lam *et al.* (2005c) found that cognitive therapy was less effective for those who believed that they had personal attributes similar to hypomania. These individuals did not see hypomanic symptoms as part of their illness, and thus these symptoms were resistant to change. In recent years new Third Wave therapies of Dialectical Behaviour Therapy and Mindfulness-Based cognitive therapy have attempted to provide a different approach to bipolar disorder than that offered by traditional CBT.

**Dialectical behaviour therapy:** Dialectical Behaviour Therapy (DBT) is a development from CBT which uses insights from behavioural science, Zen Buddhism and dialectical philosophy in order to address interpersonal problems and suicidal behaviours (Salsman and Linehan, 2006). This was originally developed for the treatment of borderline personality disorder, but in recent years has been applied to other conditions (Lynch *et al.*, 2007). Two self-help books have been published on how to use DBT skills to help regulate emotions in bipolar disorder (VanDijk, 2009; VanDijk and Guindon, 2010). However, at present there has been little research to support its effectiveness. Goldstein *et al.* (2007) used DBT with adolescents aged 14 to 18 with bipolar disorder. The sessions were delivered with families and individually over a year. Completion and satisfaction were high and there were reductions in suicidal ideation and self-harm, as well as improvement in affect control and depression (Goldstein *et al.*, 2007). DBT aims to enhance emotional regulation, so, it may hold potential for bipolar disorder. However, there is little evidence to support its effectiveness at present.

**Mindfulness-based cognitive therapy:** Mindfulness Based Cognitive Therapy (MBCT) incorporates elements of traditional CBT with mindfulness meditation and was originally developed in an attempt to reduce relapse rates for unipolar depression (Segal *et al.*, 2002). It has been suggested that mindfulness meditation may be especially helpful for bipolar disorder as relapse rates are high and often due to anxiety and stress (Ball *et al.*, 2007). Mindfulness aims to help regulate thoughts, feelings and reduce stress, therefore it may help prevent relapse in bipolar disorder. Miklowitz *et al.* (2009) used 8 weeks of MBCT and found improved symptoms of depression and mania as well as reduced suicidal ideation and anxiety. However, this appeared to be more effective for depression than mania. Williams *et al.* (2008) similarly found reductions in anxiety and depression and Bonvalot *et al.* (2010) found that adding mindfulness to traditional CBT reduced drop out. However, Weber *et al.* (2010) found that although MBCT was rated highly, there was no overall improvement in depression.

#### **FAMILY FOCUSED TREATMENTS**

**Family psychoeducation:** Family focused treatments aim to involve the caregivers and family of those with bipolar disorder. These are often psychoeducational; they attempt to educate family members about the symptoms of bipolar disorder, treatment options and management

techniques. Such psychoeducation has been found to improve knowledge about bipolar disorder in families, as well as reduce the sense of burden on caregivers and consequently relieve stress (Reinares *et al.*, 2003). Reinares *et al.* (2008) gave 12 sessions of psychoeducation to family members without the patients present, finding that this led to fewer relapses and longer between affective episodes. Similarly, D'Souza *et al.* (2010) gave psychoeducation to patients and their partner, finding a reduced likelihood of relapse and improved manic symptom severity. There was also longer between episodes, an effect which was mediated by enhanced medication compliance (D'Souza *et al.*, 2010). Whilst many of the psychoeducational interventions have been developed and tested in Western countries such as the U.S., they are beginning to be adapted cross culturally. For example, Ozerdem *et al.* (2009) adapted a 21 session psychoeducational intervention designed in the US for use in Turkey. Recent research has also developed a psychoeducational intervention for the parents and a families of children with bipolar disorder, finding that it improved self-reported knowledge and coping skills and led to more positive attitudes (Fristad *et al.*, 2002).

**Family focused therapy:** As well as psychoeducational approaches, interventions have been developed which more actively involve the family members. Such interventions are known as family focused therapy. In addition to psychoeducation, these interventions include elements such as communication and problem skill training for families (Miklowitz *et al.*, 2003). Research suggests that family focused therapy is more clinically effective than family psychoeducation alone, with reductions in the number of relapses and longer between episodes (Miklowitz *et al.*, 2000, 2003; Reinares *et al.*, 2008). Family focused interventions also appear to be more effective than individually administered interventions; Rea *et al.* (2003) found that 28% of those in a family intervention relapsed compared to 60% in an individual intervention. In addition, only 12% were hospitalised compared to 60% who had individual work (Rea *et al.*, 2003). Solomon *et al.* (2008) similarly found that actively involving all members of the patient's family reduced rates of hospitalisation. There is however, evidence to suggest that the effect on relapse rates is seen for hypomanic or manic episodes, but not for depressive or mixed episodes (Reinares *et al.*, 2008). Similarly, Solomon *et al.* (2008) found no effect on type of episode. Additional work has documented that such interventions have also been found to reduce affective symptom severity (Miklowitz *et al.*, 2003). However, some work suggests that this is the case for depressive

symptoms but not manic or hypomanic symptoms (Miklowitz *et al.*, 2000). They may also increase adherence to medication treatments (Miklowitz *et al.*, 2003), though other work has failed to find such an effect (Reinares *et al.*, 2008). A limited body of research has tried to develop family therapy interventions for children and adolescents with bipolar disorder, finding improvements in the severity of manic, depressive and psychotic symptoms (Miklowitz *et al.*, 2004; Pavuluri *et al.*, 2004). These interventions with young people have also been shown to improve functioning and reduce problematic behaviour (Miklowitz *et al.*, 2004; Pavuluri *et al.*, 2004).

**Limitations of family interventions:** It is important to note that some research has failed to find a benefit of family focused treatments; Miller *et al.* (2004) found that family therapy or family psychoeducation in addition to medication did not improve recovery more than medication alone. It has also been noted that whilst family interventions may reduce relapse, they have no impact on recovery from an acute affective episode (Solomon *et al.*, 2008). There is evidence to suggest that providing psychoeducation for caregivers and families is more beneficial if provided earlier on in the course of the illness, and it may be that there is limited or no impact if intervention is delayed (Reinares *et al.*, 2010). It is also possible that only certain families will benefit from such interventions: Miller *et al.* (2008) found that family therapy or psychoeducation for those with bipolar I disorder only led to improvements in patients who were part of a dysfunctional family. Similarly, Miklowitz *et al.* (2000) showed that improvements were more pronounced where there were high levels of expressed emotion. Family interventions have been developed which try to reduce such expressed emotion, but it seems relatively resistant to change. Eisner and Johnson (2008) found that a family intervention improved knowledge about bipolar disorder, but families still have high levels of blame, criticism and anger (Eisner and Johnson, 2008).

#### **OTHER INTERVENTIONS**

**Alternative therapeutic approaches:** In addition to the psychosocial interventions for bipolar disorder mentioned previously, there are studies which have examined the potential of alternative therapeutic approaches. Goldner-Vukov *et al.* (2007) used group therapy with elements of existential therapy and found preliminary evidence to support its effectiveness. Gonzalez and Prihoda (2007) also found that group psychodynamic therapy improved depression and reduced episode duration. Relapse prevention interventions which focus

on early warning signs and prodromal symptoms have also been developed (Lobban *et al.*, 2007). Similarly, Castle *et al.* (2010) recently developed a group intervention using a stress-vulnerability approach. This was found to reduce the number of depressive and hypomanic or manic episodes (Castle *et al.*, 2010). Interestingly however, the severity of these affective symptoms was not significantly reduced. This suggests that the intervention did not improve symptoms *per se*, but rather increased the patient's ability to cope with the symptoms and therefore reduce the likelihood of relapse and hospitalisation (Castle *et al.*, 2010).

**Commonalities between approaches:** Research has shown that many different psychosocial interventions for bipolar disorder share a number of specific components such as teaching problem solving skills (Miklowitz *et al.*, 2008). In addition research suggests that there is often little difference between these types of specific interventions in terms of clinical effectiveness. For example, Miklowitz *et al.* (2007a) found that psychoeducation, family focused interventions and CBT with IPSRT were equally effective. Similarly, Miklowitz *et al.* (2007b) found no difference in terms of recovery between IPSRT, CBT or family focused interventions. As a result, it is likely that in the future there will be increased research on collaborative approaches which combine elements from a number of different interventions.

#### **CONCLUSIONS**

Recent research has begun to highlight the potential of a number of different psychosocial interventions for bipolar disorder. Group psychoeducation appears to be effective with improvements in relapse rates, hospitalisation and functioning, which appear to be the result of improved awareness of the illness and an enhanced sense of control. However, beliefs about the illness, as well as the number of previous affective episodes may affect outcome. Interpersonal and Social Rhythm Therapy also appears to reduce the risk of relapse and improve functioning, however the long term benefits are unclear. Cognitive behaviour therapy has been shown to reduce relapse rates and duration of episodes, as well as reduce service use and improve affective symptoms. Whilst CBT has been adapted for use with younger clients, it has rarely been applied to older adults or those from different cultures. There is controversy over the long-term benefits of CBT and its effect on specific affective episodes, thus in recent years new third wave approaches have developed. Dialectical Behaviour Therapy has been applied to bipolar disorder in

adolescents but there is little evidence on its effectiveness at present. There is however a growing evidence base for the use of mindfulness-based cognitive therapy as a way to reduce symptom severity.

Family focused treatments offer potential with psychoeducation for family members leading to a number of improvements. Family focused therapy appears to be more effective than psychoeducation alone, with reduced rates of relapse and hospitalisation. However, such interventions are most effective in the early stages of an illness and with dysfunctional families and expressed emotion in these families seems resistant to change. In recent years research has begun to highlight the common components of these therapies and in the future there may be attempts to combine them. In conclusion, there are a number of psychosocial interventions which appear to be effective for bipolar disorder, with reduced rates of relapse, improved functioning and reduce symptom severity and service use. However, there are a number of approaches where the evidence base is still relatively small and thus future research needs to help demonstrate the efficacy of these therapies in order to help inform mental health professionals as to the best course of intervention.

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