

# Perceptions on concordance with bipolar medication

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**Medication concordance is vital to effective long-term treatment of any chronic disease. In October 2011, eight experts in the field of bipolar disorder and concordance discussed current perceptions of concordance and how it applies to the treatment of people with bipolar disorder. This supplement summarizes the debate and highlights key learnings for health-care professionals treating bipolar disorder in the UK.**

Concordance is a relatively recent term, and has been defined as:

**‘an agreement reached after negotiation between a patient and a health care professional that respects the beliefs and wishes of the patient in determining whether, when and how medicines are to be taken (Horne and Weinman, 2004).’**

This implies that there has been a full and frank discussion between the treating physician and the patient, and that the plan incorporates both respective views. Thus to achieve concordance, it is necessary that the patient has a conceptual understanding of the issues being discussed.

A major problem in psychiatric research (and indeed in all therapeutic fields) is that many authors tend to talk about measuring concordance and then go on to measure compliance or adherence. In contrast to concordance, compliance has been defined as: ‘the extent to which the patient’s behaviour matches the prescriber’s recommendations (Haynes et al, 1979)’ – this concept is falling out of use as it implies a patronising behaviour of the treating physician and the bending of the patient’s will to the views of the physician. The term adherence, defined as: ‘the extent to which the patient’s behaviour matches agreed recommendations from the prescriber’, was introduced to emphasize the patient’s freedom to follow the advice of the physician, or not (Barofsky, 1978). Thus the terms ‘adherence’ and ‘compliance’ both describe the behaviour of one individual – the patient.

A key problem in discussing concordance is that it describes a much more complex relationship – relating to

the process (e.g. partnership) and outcomes (agreement or shared decision-making) of prescribing. As the report by Horne et al (2005) states:

**‘It is nonsensical to use the term concordance when we want to describe the behaviour of an individual (rather than their interaction with the prescriber).’**

The group discussed that in current practice, most psychiatrists would hesitate to use the term concordance in the context of bipolar disorder but would still prefer to use the term adherence. Debate took place regarding the concept of concordance and how it had originated from discussions initiated to understand the importance of taking statins for the prevention of cardiovascular health (i.e. physical disease) and that it can be harder to apply such concepts to mental health. For example, because the symptoms of bipolar disorder vary greatly over time, it is hard to apply the term concordance across the stages of bipolar disorder – can a patient in a manic state really be expected to engage fully in the discussion? Also, the term concordance cannot be truly applied to the management of patients who are being treated under section (see later).

## How big a problem is non-concordance in bipolar disorder?

Non-concordance and non-adherence with medication is a major problem in any long-term chronic illness, and is an especially big problem in an illness when the patient often feels ‘well’ (World Health Organization, 2003). At present, the literature is limited to estimates of adherence in bipolar disorder, with rates of non-adherence ranging from 20% to 60% (Colom et al, 2005). The differences in range reported likely reflect the different definitions of adherence and study methodologies used, and it is likely that partial non-adherence is a bigger problem than full non-adherence.

Numerous studies have shown that the consequences of non-adherence to bipolar medication are serious. In clinical trials, most primary outcomes (e.g. symptom reduction, quality of life, relapse rates, suicide attempts) are adversely affected by this behaviour (Colom et al, 2005). In practice, it has been shown that patients with bipolar disorder who have poor adherence to anti-psy-

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chotic medication are at an increased risk of hospitalizations and emergency room visits (Lage and Hassan, 2009). Indeed, not taking medications as prescribed has been shown to be the major contributing factor to when and how often people with bipolar disorder have recurrences (Colom et al, 2000).

### How can concordance be measured in bipolar disorder?

In theory, a concordant consultation process where treatment decisions are agreed should result in a decreased risk of non-adherence. This assumption, however, needs further investigation. The patient-centred model of treatment is only just being adopted into practice, and it is likely that many practitioners do not yet have the type of discussions with their patients that are required for true concordance, i.e. where patient beliefs, expectations and preferences are included (Richard and Lussier, 2007).

To improve medication taking and concordance we need to understand how and why people make decisions to take their medication. Measurement of adherence is key to this. Currently, the most common ways to measure compliance and/or adherence in mental health are to use subjective measures such as patient self-report, or objective measures such as pill counts, electronic monitoring and blood plasma concentrations (e.g. lithium); however, each of these methods has flaws (Horne, 2000). If measuring true 'adherence', one of the inherent problems of measuring patient behaviours is that the act of measurement can itself influence the behaviour, through for example, self-presentational bias and reactivity. In other words, if patients are aware that their adherence is being monitored, this might promote adherence by drawing attention to the behaviour. Similarly, most studies demand a study visit schedule that is more frequent than would be offered in clinical practice, and each study visit might be deemed a positive psychosocial intervention. It has been recommended that adherence reporting should use techniques to produce an amalgamated assessment of adherence using information from self-report and another adherence indicator.

To measure concordance, one has to have some method of determining the effect of the physician–patient conversation. One approach is to measure the 'therapeutic alliance' for which a number of validated scales exist (Summers and Barber, 2003; Zeber et al, 2008; Byrne and Deane, 2011). These alliance measures usually include a therapist- and patient-rated version as well as an independent observer version. However, there is evidence that patient self-report is a better predictor of outcome than therapist self-report, especially when assessed early in treatment (Summers and Barber, 2003). Another way that is currently being looked at in other therapeutic areas is to record the discussion between the physician and patient and measure dialogue ratios or the

'preponderance of initiative.' Such analyses have revealed four main communication roles that patients and physicians adopt when participating in medication-related exchanges during consultations: listener, information provider, participant and instigator (Richard and Lussier, 2007). These tools have so far been used in other long-term conditions such as diabetes (Latter et al, 2010), and it is hoped that these methods may help in future studies of true concordance in bipolar disorder and other fields of mental health.

### Is there a particular phase of bipolar disorder in which non-adherence is most likely to occur?

There was unanimous agreement that patients present differently at different stages of illness. A patient with mania is expected to lose insight very quickly (Ghaemi et al, 1995), and therefore even those patients who understood the reasons for their treatment and have been adherent when in the remission stages can very quickly become non-adherent when in the manic phase. For example, patients in the manic phase may be non-adherent simply because they feel good (Colom et al, 2005). Many patients with bipolar disorder say that they feel more creative and able to achieve when they are experiencing hypomania. In addition, it is important to recognize the many cognitive problems, particularly problems with executive function and task completion, which patients with bipolar disorder suffer when in the manic phase (Taylor and Abrams, 1986; Morice, 1990; Martinez-Aran et al, 2000; Quraishi and Frangou, 2002). Such cognitive problems would likely lead to non-intentional non-adherence.

The group discussed that non-adherence can also emerge when the patient enters the depressive phase. For example, the lack of adherence can arise from the patient simply forgetting to take his/her medication; patients in the depressive stage lose their motivation and drive and are therefore less likely to adhere to their treatment regimen.

### Is it possible to predict rates of patient non-adherence based on their behaviour and beliefs?

It has been proposed that non-adherence is a complication of bipolar illness similar to rapid cycling or suicidal ideation. Thus, it is incumbent on the physician to try and identify those patients who are most likely to be non-adherent so that they can be monitored and appropriately treated (Colom and Vieta, 2002). However, this is easier said than done. The group discussed that many factors can influence adherence. Key factors are the patient's age and stage of illness – for example, a young newly diagnosed patient is more likely to learn 'the hard way'. Other important factors include patient education, social support and previous experience of bipolar disorder.

It is also useful for the treating physician to recognize that there are many types of medicine-taking behaviour. Studies have suggested a number of typologies including the direct-reactive type, the deferential-compliant type and the active discerning and optimizing type (Marland and Cash, 2005). These typologies often influence the reasons that patients on long-term prophylactic medication believe that they should continue to take their medication. For example, the group discussed that patients who are of the 'deferential-compliant' type often hold to the hope that their illness will 'end' if they continue to take their medication, whereas patients of the direct-reactive type are more likely to deviate from the original treatment plan while trying to find the regimen that they feel best suits them.

In order to set realistic treatment goals, it is vital to understand the patient's own beliefs underlying the reasons to take a medication. Studies have shown that bipolar patients who have a strong belief that they should try harder to control to their mood show lower treatment adherence (Scott and Tacchi, 2002). The patient also needs to have a good understanding of what the medication can (and cannot) do. For example, most patients want to know that the medication will help treat the symptoms that affect their daily life, and it is important for them to understand what is achievable. In this respect, it is important to note the difference between the physician's view of symptoms (e.g. grandiosity or reduced ability to concentrate) *vs* the patient's view of the impact on his/her life (e.g. the ability to go out at night). Other patients initially believe that 'something will grow back in their brain', and it is important to address such misconceptions. Finally, when discussing treatment goals, it is equally important to try to understand how much information the individual patient will be receptive to – in order to be fully engaged in the discussion, the patient has to be able to 'take in' the information and apply it to his/her own situation.

### What are the possible reasons for a lack of concordance?

#### Impact of patient beliefs

It is well established that bipolar patients who do not follow their medication plan usually lack insight into the nature of their disorder and do not understand the imperative for long-term treatment. Some patients can view taking medication as something akin to 'slavery', they often fear drug dependence, and voice that they feel ashamed because they view taking their medication as something unnatural. Some patients view taking medications as a sign of personal weakness and as a reminder of their lack of control (Clatworthy et al, 2007). The social stigma of mental illness is also still held to be a major factor contributing to the failure to properly take bipolar medications (although the rise in the number of celebrities admitting mental health issues means that this stigma is slowly decreasing). Patient beliefs with regard to

medication have been conceptualized in the Necessity Concerns Framework whereby a patient's motivation to adhere to treatment is influenced by his/her beliefs about treatment and judgement of his/her personal need for treatment relative to his/her concerns about potential adverse effects (Horne and Weinman, 1999; Clatworthy et al, 2009).

The group also discussed that while family and friends are crucial allies in promoting medication treatment adherence, they may also represent a significant barrier if they are not fully informed about the nature of mental illness (Sajatovic et al, 2011). This not only relates to the social stigma of bipolar disorder, but also to how the family deals with the patient when he/she is experiencing an episode. Many members of the group had anecdotes of how a patient's family preferred the patient when he/she was depressed and sitting quietly in a corner. Transcultural differences and culturally biased self-perceptions (e.g. medication as a symbol of illness) are also important and should be taken into account.

For the patient who is in the remission stages, the taking of long-term prophylactic treatment relates to the patient's perceived need to take a medication. The fact that they 'are doing fine' can often lead to questions as to why they need to take medication at all. Indeed, lower perceived need has been shown to be associated with lower adherence (Clatworthy et al, 2009). Some patients may remember past hypomanic episodes positively and may subconsciously want to experience them again. From the societal perspective, the treating physicians and family often expect the patient to take (adhere to) a medication to control their symptoms, but the patient might believe that the risks of medication outweigh the benefits for him/her personally.

For true concordance, there needs to be a discussion of the risks and benefits of the proposed treatment plan. Indeed, the group agreed that there is a subtle, yet important, difference between informed consent and the proper agreement of a treatment plan (that is required to meet the definition of concordance). The difference is in how well the patient engages in the discussion.

#### Impact of medication characteristics

The group agreed that medication is a cornerstone of the management of bipolar disorder, and there is therefore a need for a range of medications to ensure patient choice. The physician's choice of medication will not matter if the patient does not take it as prescribed. Patients are generally primarily concerned about the efficacy of treatment (i.e. how it 'works' to enable them to lead their daily lives) and then second how safe or tolerable the treatment is. These are closely linked as patients are less likely to take medication if the perceived benefits do not outweigh perceived negatives.

Tolerability includes short- and long-term effects, and should be discussed in full with the patient. For example, since there is considerable variability in the associ-

ated weight gain and metabolic effects between the currently available antipsychotics, it is important that the patients considering treatment with an antipsychotic understand the risks of their proposed medication, as well as the need for continual monitoring of weight and other metabolic indicators (Rummel-Kluge et al, 2010). This is in keeping with the treatment of the patient holistically and the notion of a person-centred integrative diagnosis covering both physical and mental health (Mezzich et al, 2010). On the other hand, the group agreed that overwhelming the patient with adverse event statistics can lead to the patient 'looking' for adverse effects of the medication.

Other characteristics such as route of administration (oral *vs* injection) and frequency of treatment are also important for some patients; injectable therapies are still associated with significant social stigma, although some patients prefer the necessary contact with a community nurse and the reduced need for taking daily oral medication (Walburn et al, 2001). In addition, the fact that not every medication suits every patient means that patients can often feel 'experimented on' until the right medication regimen is found (leading to disenchantment with treatment).

### Impact of comorbidities

In patients with bipolar disorder, comorbidity is the rule, not the exception. The most common mental disorders that co-occur with bipolar disorder include anxiety, substance use and personality disorders (Baldassano, 2006; Singh and Zarate, 2006; Merikangas et al, 2007). The group highlighted that comorbid anxiety is often underdiagnosed and is particularly difficult to treat, and if this occurs while tailoring the treatment approach, patients frequently lose faith in all medications. Similarly, patients who have been initially misdiagnosed with depression have often already developed the perception that no drug is effective for their symptoms. The group discussed that the type of patients who have a comorbid substance abuse (up to 70% of patients with bipolar disorder are reported to have an substance abuse issue (Ostacher and Sachs, 2006)) are often those who display high risk-taking behaviours – and risk taking may be a key trait of patients who are non-adherent. Comorbid substance abuse has been shown to be associated with non-adherence in both younger and older patients (Sajatovic et al, 2007). Similarly, patients with comorbid personality disorders may be associated with difficulty with concordance (for example as a result of difficulties in engaging in the discussion), although the group emphasized that some personality disorder traits can often complicate and delay the diagnosis of the bipolar illness, and that it can take time to differentiate personality traits from illness.

The group further discussed that comorbidities with bipolar disorder are not limited to mental health and that physical health problems such as obesity, metabolic syndrome, cardiovascular disease and diabetes are

particularly common (Kupfer, 2005; McIntyre et al, 2007). These can all impact on medication concordance – particularly as many bipolar medications can contribute or further exacerbate the comorbid problem. While it is clear that assessing and treating medical comorbidity should be part of the routine care of patients with bipolar disorder, the group recognized that the need to treat comorbid conditions can mean that the patient is taking several types of medication and this can only add to compliance difficulties, and possibly reduced concordance.

### Current service provision for people with bipolar disorder

There was universal agreement that the medical treatment of bipolar disorder is now considered more complex given the comorbid conditions and the variety of treatments now available. Bipolar disorder is a chronic illness, with significant impact on the patient, families and carers even when the patient is stable. Indeed, it is becoming increasingly clear that many patients do not completely recover between episodes and fail to regain full functionality because of the presence of subclinical symptoms (MacQueen et al, 2001). Adding to the milieu, there are now an increased number of medications to treat the symptoms of bipolar disorder, with their own efficacy and tolerability profile. Antipsychotics are now routinely used in the management of bipolar disorder and many of these products are also available as both an immediate and a prolonged release formulation. Finally, co-prescribing of medications for bipolar disorder is increasingly common. This degree of complexity means that many primary care physicians now consider that the management of bipolar disorder should mainly take place within secondary care.

Current models of treatment in bipolar disorder require a multidisciplinary integrated approach, and it is therefore important that there be a coordinated service provision where all the health-care professionals involved in the management of bipolar patients are linked to provide continuity of care. Patients often want to be managed in the primary care setting – especially when they are stable and doing well. Thus GPs are ideally placed to help in the recognition of when a patient is entering a manic or depressive episode. It is therefore vital that GPs should have easy access to specialists who are often better placed to understand the complexities of bipolar management. However, service provision in the UK is currently disjointed in certain locations and is often dependent on the personal interests of the local physicians. Current National Institute for Health and Clinical Excellence guidelines are considered too vague in delineating the need for bipolar services such as early intervention. Moreover, the NHS sets targets for the number of patients who should receive early intervention for psychosis and therefore the management of psychosis is often prioritized.

### The role of psychosocial support in the management of bipolar disorder

The group discussed the numerous studies that have shown how psychosocial interventions enhance pharmacotherapy understanding as well as patient outcomes in bipolar disorder (Miklowitz et al, 2007). However, research emphasis has been on the medication with 'adjunct' psychosocial intervention, and there is less literature on the efficacy of psychosocial techniques alone. The group discussed that there is accumulating evidence that psychoeducation, cognitive behavioural therapy, interpersonal and social-rhythm therapy, and marital or family therapy improve outcomes in bipolar disorder (Scott and Tacchi, 2002; Colom et al, 2003a,b; British Psychological Society, 2010). Although each therapy has a different emphasis, they all focus on medication management, social and family problem solving, and communication training. They also all fit with current models of patient-centred care, on which the tenets of concordance are based.

### Advance statements

The group specifically discussed the utility of advance statements in the management of patients with bipolar disorder. Although well-educated patients can use such assertions to their advantage, the group's collective experience of advance statements was generally negative. Only a minority of patients demonstrate any interest in completing them, even when specifically educated about their use (Foy et al, 2007), and when they are used patients often make unrealistic demands (such as treatment in specific locations) or to refuse injections – even when they are experiencing acute levels of disturbance such as a manic episode. Moreover, under Part 4 of the Mental Health Act a doctor is allowed to treat a patient for a mental health condition without consent.

### Closing thoughts

The goal of all treatment is to assist recovery, stabilize and maintain an individual at the optimal level of functioning. Treatment has to include the whole individual – that is body and mind. This goal requires a multidisciplinary integrated approach to empower the individual to recovery through joint responsibility, mutual respect and understanding. One of the best ways to achieve this aim is to promote concordance between patient and provider with regard to the patient's medication regimen. However, concordance is vulnerable to events in the patient's life and to patient expectations, which can change over the course of the illness. Physicians should therefore plan for long-term wellbeing while retaining the ability to react to issues as they arise.

The definition of concordance implies a certain competence of the prescribing physician to educate the patient regarding the nature of bipolar disorder, taking into account patient beliefs, expectations and goals. In order to ensure concordance throughout the course of the

illness, the prescribing physician has to be able to intervene as early on as possible and effectively manage the illness. The physician also needs to be able to discern the level of information that the patient will be receptive to. Studies of clinical practice have found that concordance is a lot easier to assimilate into language than it is into practice. One survey found that although nurse prescribers often believed they were applying the principles of concordance within their prescribing activity, their behaviour suggested a much more directive approach which can be unhelpful (Latter et al, 2007).

The development of educational programmes to improve physician skills in developing concordance would therefore represent an important investment to improve management of bipolar disorder. A first step into this might be the use of programmes such as 'The Common Ground' ([www.patdeegan.com](http://www.patdeegan.com)), developed in the US, which provides a software-based system for shared decision making between the prescribing doctor and patient, thereby offering a structured way of improving concordance (Deegan and Drake, 2006; Deegan et al, 2008). **BJHM**

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Baldassano CF (2006) Illness course, comorbidity, gender, and suicidality in patients with bipolar disorder. *J Clin Psychiatry* **67** (Suppl 11): 8–11

Barofsky I (1978) Compliance, adherence and the therapeutic alliance: steps in the development of self-care. *Soc Sci Med* **12**(5A): 369–76

British Psychological Society (2010) *Psychology DoC. Understanding Bipolar Disorder: Why some people experience extreme mood states and what can help?* British Psychological Society, Leicester

Byrne MK, Deane FP (2011) Enhancing patient adherence: outcomes of medication alliance training on therapeutic alliance, insight, adherence, and psychopathology with mental health patients. *Int J Ment Health Nurs* **20**(4): 284–95

Clatworthy J, Bowskill R, Rank T, Parham R, Horne R (2007) Adherence to medication in bipolar disorder: a qualitative study exploring the role of patients' beliefs about the condition and its treatment. *Bipolar Disord* **9**(6): 656–64

Clatworthy J, Bowskill R, Parham R, Rank T, Scott J, Horne R (2009) Understanding medication non-adherence in bipolar disorders using a Necessity-Concerns Framework. *J Affect Disord* **116**(1-2): 51–5

Colom F, Vieta E (2002) Non-adherence in psychiatric disorders: misbehaviour or clinical feature? *Acta Psychiatr Scand* **105**(3): 161–3

Colom F, Vieta E, Martinez-Aran A, Reinares M, Benabarre A, Gasto C (2000) Clinical factors associated with treatment noncompliance in euthymic bipolar patients. *J Clin Psychiatry* **61**(8): 549–55

Colom F, Vieta E, Reinares M et al (2003a) Psychoeducation efficacy in bipolar disorders: beyond compliance enhancement. *J Clin Psychiatry* **64**(9): 1101–5

Colom F, Vieta E, Martinez-Aran A et al (2003b) A randomized trial on the efficacy of group psychoeducation in the prophylaxis of recurrences in bipolar patients whose disease is in remission. *Arch Gen Psychiatry* **60**(4): 402–7

Colom F, Vieta E, Tacchi MJ, Sanchez-Moreno J, Scott J (2005) Identifying and improving non-adherence in bipolar disorders. *Bipolar Disord* **7** (Suppl 5): 24–31

Deegan PE, Drake RE (2006) Shared decision making and medication management in the recovery process. *Psychiatr Serv* **57**(11): 1636–9

Deegan PE, Rapp C, Holter M, Riefer M (2008) Best practices: a program to support shared decision making in an outpatient psychiatric medication clinic. *Psychiatr Serv* **59**(6): 603–5

- Foy J, MacRae A, Thom A, Macharouthou A (2007) Advance statements: survey of patients' views and understanding. *The Psychiatrist* **31**: 339–41
- Ghaemi SN, Stoll AL, Pope HG Jr (1995) Lack of insight in bipolar disorder. The acute manic episode. *J Nerv Ment Dis* **183**(7): 464–7
- Haynes RB, Taylor DW, Sackett D (1979) *Compliance in Health Care*. 1st edn. John Hopkins University Press, Baltimore
- Horne R (2000) Nonadherence to medication: Causes and implications for care. In: Gard P, ed. *Personal and Social Factors in Pharmacy*. Blackwell Science, Oxford: 111–30
- Horne R, Weinman J (1999) Patients' beliefs about prescribed medicines and their role in adherence to treatment in chronic physical illness. *J Psychosom Res* **47**(6): 555–67
- Horne R, Weinman J (2004) The theoretical basis of concordance and issues for research. In: Bond C, ed. *Concordance: A partnership in medicine-taking*. Pharmaceutical Press, London
- Horne R, Weinman J, Barber N, Elliott R, Morgan M (2005) Concordance, adherence and compliance in medicine taking. NCCSDO, London
- Kupfer DJ (2005) The increasing medical burden in bipolar disorder. *JAMA* **293**(20): 2528–30
- Lage MJ, Hassan MK (2009) The relationship between antipsychotic medication adherence and patient outcomes among individuals diagnosed with bipolar disorder: a retrospective study. *Ann Gen Psychiatry* **8**: 7
- Latter S, Maben J, Myall M, Young A (2007) Perceptions and practice of concordance in nurses' prescribing consultations: findings from a national questionnaire survey and case studies of practice in England. *Int J Nurs Stud* **44**(1): 9–18
- Latter S, Sibley A, Skinner TC et al (2010) The impact of an intervention for nurse prescribers on consultations to promote patient medicine-taking in diabetes: a mixed methods study. *Int J Nurs Stud* **47**(9): 1126–38
- McIntyre RS, Soczynska JK, Beyer JL et al (2007) Medical comorbidity in bipolar disorder: re-prioritizing unmet needs. *Curr Opin Psychiatry* **20**(4): 406–16
- MacQueen GM, Young LT, Joffe RT (2001) A review of psychosocial outcome in patients with bipolar disorder. *Acta Psychiatr Scand* **103**(3): 163–70
- Marland GR, Cash K (2005) Medicine taking decisions: schizophrenia in comparison to asthma and epilepsy. *J Psychiatr Ment Health Nurs* **12**(2): 163–72
- Martinez-Aran A, Vieta E, Colom F et al (2000) Cognitive dysfunctions in bipolar disorder: evidence of neuropsychological disturbances. *Psychother Psychosom* **69**(1): 2–18
- Merikangas KR, Akiskal HS, Angst J et al (2007) Lifetime and 12-month prevalence of bipolar spectrum disorder in the National Comorbidity Survey replication. *Arch Gen Psychiatry* **64**(5): 543–52
- Mezzich JE, Salloum IM, Cloninger CR et al (2010) Person-centred integrative diagnosis: conceptual bases and structural model. *Can J Psychiatry* **55**(11): 701–8
- Miklowitz DJ, Otto MW, Frank E et al (2007) Psychosocial treatments for bipolar depression: a 1-year randomized trial from the Systematic Treatment Enhancement Program. *Arch Gen Psychiatry* **64**(4): 419–26
- Morice R (1990) Cognitive inflexibility and pre-frontal dysfunction in schizophrenia and mania. *Br J Psychiatry* **157**: 50–4
- Ostacher MJ, Sachs GS (2006) Update on bipolar disorder and substance abuse: recent findings and treatment strategies. *J Clin Psychiatry* **67**(9): e10
- Quraishi S, Frangou S (2002) Neuropsychology of bipolar disorder: a review. *J Affect Disord* **72**(3): 209–26
- Richard C, Lussier MT (2007) Measuring patient and physician participation in exchanges on medications: Dialogue Ratio, Preponderance of Initiative, and Dialogical Roles. *Patient Educ Couns* **65**(3): 329–41
- Rummel-Kluge C, Komossa K, Schwarz S et al (2010) Head-to-head comparisons of metabolic side effects of second generation antipsychotics in the treatment of schizophrenia: a systematic review and meta-analysis. *Schizophr Res* **123**(2-3): 225–33
- Sajatovic M, Blow FC, Kales HC, Valenstein M, Ganoczy D, Ignacio RV (2007) Age comparison of treatment adherence with antipsychotic medications among individuals with bipolar disorder. *Int J Geriatr Psychiatry* **22**(10): 992–8
- Sajatovic M, Levin J, Fuentes-Casiano E, Cassidy KA, Tatsuoka C, Jenkins JH (2011) Illness experience and reasons for nonadherence among individuals with bipolar disorder who are poorly adherent with medication. *Compr Psychiatry* **52**(3): 280–7
- Scott J, Tacchi MJ (2002) A pilot study of concordance therapy for individuals with bipolar disorders who are non-adherent with lithium prophylaxis. *Bipolar Disord* **4**(6): 386–92
- Singh JB, Zarate CA Jr (2006) Pharmacological treatment of psychiatric comorbidity in bipolar disorder: a review of controlled trials. *Bipolar Disord* **8**(6): 696–709
- Summers RF, Barber JP (2003) Therapeutic alliance as a measurable psychotherapy skill. *Acad Psychiatry* **27**(3): 160–5
- Taylor MA, Abrams R (1986) Cognitive dysfunction in mania. *Compr Psychiatry* **27**(3): 186–91
- Walburn J, Gray R, Gournay K, Quraishi S, David AS (2001) Systematic review of patient and nurse attitudes to depot antipsychotic medication. *Br J Psychiatry* **179**: 300–7
- World Health Organization (2003) *Adherence to long term therapies: Evidence for action*. World Health Organization, Geneva
- Zeber JE, Copeland LA, Good CB, Fine MJ, Bauer MS, Kilbourne AM (2008) Therapeutic alliance perceptions and medication adherence in patients with bipolar disorder. *J Affect Disord* **107**(1-3): 53–62



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