

RAPID CYCLING AFFECTIVE DISORDER PRESENTING AS CHALLENGING BEHAVIOUR IN A SERVICE USER WITH MILD LEARNING DISABILITY - CASE REPORT

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Introduction

Increased risk of Affective Disorder in learning disability has been reported, although the extent to which this is due to adverse social and material circumstances are uncertain (Richards *et al.*, 2001). There have also been limitations in the diagnosis and measurement of affective disorder in people with learning disability (LD). In the study by Richards *et al.* 2001 of the British 1946 birth cohort, learning disability was associated with a four-fold increase in the risk of affective disorder, not accounted for by social and material disadvantages or medical disorder. The essential feature of the DSM - IV criteria for a rapid cycling bipolar affective disorder is the occurrence of four or more mood episodes during the previous 12 months. These episodes can occur in any combination and order. The episodes must meet both the duration and

symptom criteria and must be demarcated by either a period of full remission or by a switch to an episode of opposite polarity (American Psychiatric Association, 1994). The ICD-10 criteria on the other hand state that characteristically recovery should be complete between episodes (World Health Organisation, 1992). Rapid cycling occurs in approximately 5-15% of persons with bipolar disorder seen in mood disorder clinics. Whereas in bipolar disorder in general the sex ratio is equal, women comprise 70-90% of individuals with a rapid cycling pattern. The development of rapid cycling is associated with a poorer long-term prognosis (American Psychiatric Association, 1994).

In a relatively recent systematic review of rapid cycling affective disorder in people with intellectual disability (Vanstraelen and Tyrer, 1999) it was highlighted that in the non-LD population there is an excess

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of women, an excess of thyroid dysfunction, an association with the use of tricyclic antidepressants and monoamine oxidase inhibitors, which tend to be associated with onset and/or maintenance of rapid cycling. Association with the less severe forms of bipolar disorder, positive family history and demyelinating diseases and electroencephalogram (EEG) abnormalities were also reported.

In the LD population, however, the natural history of the disorder appears to be different. There were many more males in their systematic review suffering the disorder compared to females. The age of onset was also earlier in males compared to females. The mean number of episodes per year in those with severe and more profound disability was more than in those with mild and borderline disability. The shorter and more frequent episodes occurred in those suffering from more severe forms of intellectual disability. In those subjects with profound, severe and marked intellectual disability, there was a positive family history of affective disorder in 75% of cases compared with 37% in those with borderline, mild or moderate intellectual disability. There was no association with thyroid dysfunction in the LD population observed in the review.

Deb and Joyce (1998), in a retrospective review of adults with learning disability and epilepsy found that 55% presented with behavioural problems and psychiatric diagnosis was made in 12.6% with the combined diagnoses of schizophrenia, delusional disorder and schizoaffective disorder being the most common. Five percent were diagnosed with depressive episode and 3% with bipolar affective disorder.

Moss *et al.* (2000) highlighted that in people with a learning disability one of the frequent reasons for psychiatric referral is challenging behaviour, and in their study

found that an increasing severity of challenging behaviour was associated with increased prevalence of psychiatric symptoms, depression showing the most association. Anxiety symptoms were associated with the presence of self-injurious behaviour. Their view was that one strategy for potentially reducing challenging behaviour was to be geared towards improved identification and treatment of co-existing psychiatric disorder and perhaps modifying diagnostic criteria for depression in people with learning disability by including aspects of challenging behaviour.

Deb (1995) found that a substantial proportion of people with a learning disability also have associated emotional problems in the form of psychiatric illness and disturbed behaviour. In a study of the pattern of the psychiatric admissions to a hospital for people with a learning disability in the Grampian region of Scotland, the most common conditions leading up to an admission was disturbed behaviour followed by affective disorder and psychoses. The majority of the admissions were of adults with mild to moderate degree of learning disability as opposed to profound learning disability.

Case Report

Clinical Description

Ms C is a 61-year-old lady with mild learning disability, affective disorder and challenging behaviour. She has a long history of contact with the learning disability services, spanning over four decades. She was reviewed in the clinic recently following an escalation of her challenging behaviour, which was episodic and associated with mood swings.

Birth, Early Development and School History

Ms C was born in 1941 and is an only child. She was described as having had a "brain injury" at birth. Her prenatal history was essentially normal. She was a product of full-term gestation and was delivered per vaginam. The only notable finding in her birth history was the slow progress of the labour, which may suggest some degree of Birth Asphyxia, otherwise there were no other positive findings.

In terms of her developmental milestones, she walked at one year and eight months of age. She was ambidextrous after the fifth year. The first impairment, noted at age five years, was her inability to distinguish colours, this was however not further investigated.

She attended a mainstream school up to age six. She was described by the teachers as being a slow learner. Later she attended a Roman Catholic Mission School from age six to fourteen years and a special needs school from age fourteen to fifteen years. She attended a senior training college in 1965.

Social and Occupational History

She was employed by the hospital in the laundry for two and a half years, but left due to a lack of confidence. Later, in 1968 she was employed by a food processing factory as a washer up till 1969 when she lost her job due to slowness. There have been reports of abuse by her parents over the years. She suffered from clinical depression when her father died in 1976. Her living skills deteriorated with her mother's ill health who also suffered dementia and died in 1990.

Since her mother's death Ms C had lived alone until her placement in a residential home in June 1997. She often felt quite isolated and suffered bouts of depression. Ms C is unable to make decisions for herself and coupled with her loneliness tends to enter and cling to relationships that are abusive. There is a vast history of physical, emotional, sexual and financial abuse in her relationship with family and boyfriend.

Ms C neglects domestic tasks mainly due to the lack of motivation rather than lack of self-help skills. She has little knowledge of the value of money and often gave her money to friends and then left herself short of money.

Past Psychiatric History

On the Wechsler Adult Intelligence Scale (1955) Ms C scored an IQ of 58, indicating a mild learning disability. She has also been described in the past as having a "psychopathic disorder" which causes her to behave in an irresponsible manner and puts her and others at risk.

Past Medical History

In terms of her physical health, she is three stone overweight, tends to binge on food in the cupboard. Her weight can leave her breathless when walking occasionally. There is a possibility of eating disorder but she does not meet the DSM-IV criteria, nor the ICD-10 criteria for Bulimia Nervosa. She has suffered from eczema, chronic rhinitis, menorrhagia, iron deficiency and had an appendectomy. She currently sees a dietician.

Recent Clinical History

The escalation of challenging behaviour presented by Ms C appears unpredictable on the surface but on closer observation shows some pattern to it. This was demonstrated via a two stage recording process using a 'log book' and a "modified informant based mood tracking instrument". The log book records directly the behaviours observed by the carers whereas the modified informant based mood tracking instrument is much more detailed in recording of the symptoms and the behaviours observed. The tracking instrument was also used to quantify the degree of functional impairment observed. The recordings were carried out by carers who know and have worked with Ms C over the four-month period. The observations were then analysed and plotted by the clinical psychologist. The mood and degree of functional impairment were plotted on the vertical axis and the date on the x-axis. Samples of some of the recorded behaviours in the log book include: "extremely chatty - talking excessively all evening", "started crying regarding the television channel other residents wanted to watch", "argumentative, talking about what she had and others didn't and becoming 'snappy' ", "high in mood and talking constantly about the holiday booked", "waking up early complaining of headaches". Spoke of feeling "let down" and "tearful and miserable".

The "modified informant based bipolar mood tracking instrument" combines features of the bipolar mood chart developed by Sovner and Hurley (1990) together with elements of the Kiddie-Life charting method (Leverich and Post, 1998). This charting method gathers informant based data about a focus person and tracks the longitudinal course of the disorder. An effort is made to quantify with the chart the

level of functional impairment associated with a particular cluster of symptoms ('behavioural equivalents').

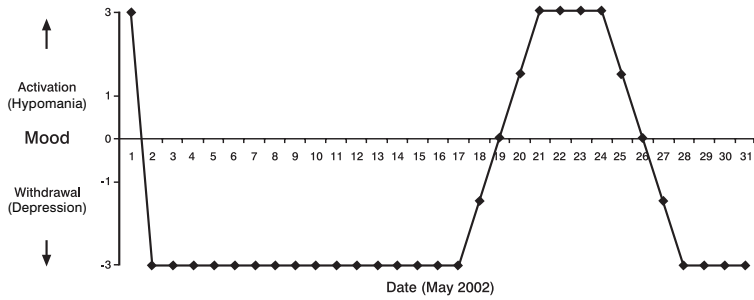
The indicators of activation (Hypomania) and withdrawal (Depression) were first identified for Ms C who cannot reliably verbally report her symptoms and then used to monitor changes in the severity and frequency of mood fluctuations during the period of study.

These indicators were recorded in a pre-agreed way on a daily basis after due discussion with the carers who were directly involved with her care. The recording was supervised by the Clinical Psychologist. Data was converted using the numbered item scale (-3 to +3) according to the observed level of functional impairment and severity and whether there was "activation" or "withdrawal" on a particular day. There were three levels of episode severity: mild, moderate and severe. The quantitative data obtained was then transcribed graphically for visual display.

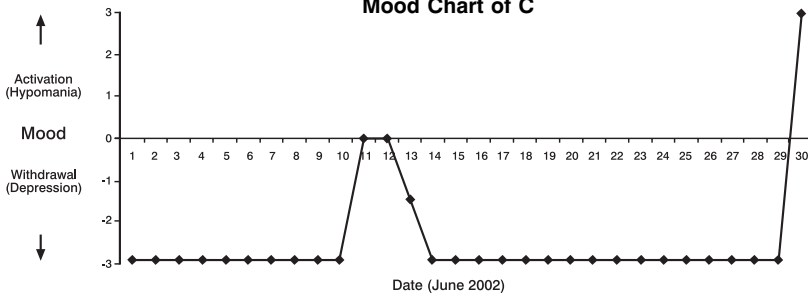
FIGURES 1-4 show the different mood states exhibited by Ms C over the four-months period from May 2002 to August 2002. Changes in mood state using behavioural correlates are plotted on the y-axis and date on the x-axis.

In FIGURE 1 Ms C was feeling low and depressed and tearful from day 1 to 17 in May 2002, then started becoming "chatty and high" from about day 18 to 26, then started feeling low again for the rest of the month. In FIGURE 2 Ms C remained low, depressed and miserable up to day 10 of June 2002, had a brief period of normal mood for about a day and then again her mood plummeted and she remained low till the 29th June 2002 (FIGURE 2). Her mood went quite high again on 30th June 2002. She remained quite high for the first 15 days of July and then again was feeling low and depressed for about five days

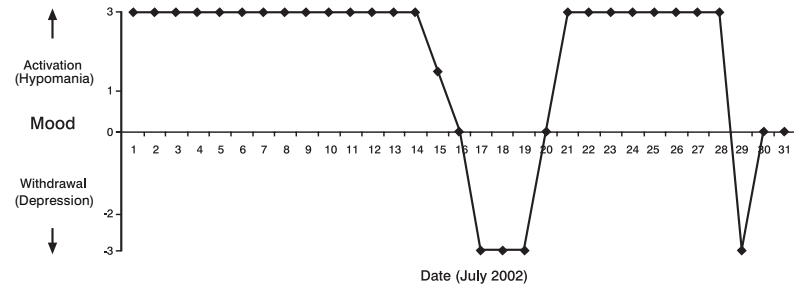
**FIGURE 1
Mood Chart of C**



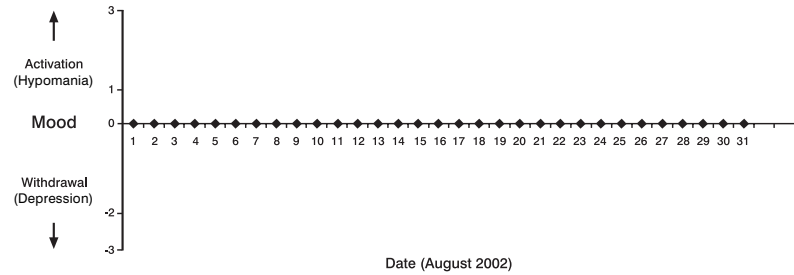
**FIGURE 2
Mood Chart of C**



**FIGURE 3
Mood Chart of C**



**FIGURE 4
Mood Chart of C**



after which she became high for the next ten days till the 28th of the month (FIGURE 3). She felt depressed for one day then gradually her mood was restored to its normal pattern. She remained in this stable mood for the subsequent whole month of August 2002 (FIGURE 4).

Sleep Pattern

Ms C's sleep pattern was variable. When she was feeling low her total sleep period was reduced with early and middle insomnia as well as early morning awakening on some days. When her mood was elated she had a tendency to go to bed late, about 12.30am/1.00am and was then able to sleep till about 7.30am. Sometimes there was no pattern at all. She fell asleep only when she was tired.

Diagnosis

The DSM-IV allows "rapid cycling" to be used as a descriptor in the diagnosis of bipolar affective disorder of either type I or II. In this case study Ms C suffered five bouts of major depressive episodes over a four months period. Each episode lasting about 10.2 days on the average with biological and cognitive features of depression, of feeling low in mood, tearful, "lack of energy", "lack of motivation", boredom and weight loss, miserable, irritable and snappy, unhappy, cannot see any future, poor sleep and withdrawing to her bedroom. Interspersed with these bouts of depression were bouts of elated mood which lasted more than four days without any psychotic symptoms but were characterised by "restlessness", "poor sleep", "feeling chatty and high", "talkative", "ex-

cited", "agitated" and "over activity". On one occasion she ran away from staff while shopping in a supermarket and was verbally aggressive. There was a direct switch from one polarity to another without any period of full remission. This was the pattern over the period of study. Based on these observations we were of the opinion that Ms C met the DSM-IV criteria for a bipolar type II disorder, the most recent episode being hypomanic with rapid cycling.

In the past she has been treated "on and off" with antidepressants for depression and neuroleptics mainly for behaviour problems. The main focus has been on her challenging behaviour.

Discussion

Ms C presented quite severe challenging behaviour which showed itself mainly in physical aggression and making verbal threats to staff and other service users. These behaviours were quite unpredictable on the surface but on closer monitoring showed some pattern to it. More importantly, the challenging behaviour seemed to have responded very little to the behaviour management guidelines in place, as well as medication. The behaviour management guidelines implemented included consistency of approach by staff, structured day activities and behavioural contracts. In the early stages of arousal Ms C was reminded to use self-calming strategies such as deep-breathing exercises and relaxation techniques. Staff offered her distracting or repetitive activities such as inserting handouts in newspapers that were later distributed locally. Ms C also completed a physical exercise programme using aerobics and endurance training in a gymnasium. A variety of neuroleptics and

benzodiazepines have been used in the past as well as antidepressants.

Close monitoring revealed that Ms C suffered a significant deterioration in her mental state, especially of her mood shortly before and during the incidents of challenging behaviour. The temporal relationship between the changes in her mood state, i.e. being chatty, talkative, excited or feeling low and depressed and tearful as revealed by the mood chart, and the escalation in challenging behaviour was remarkable. Although it has to be mentioned that other factors may influence the occurrence, frequency and intensity of the challenging behaviour such as environmental factors, carer factors, staff relationships with the service user, time of the day and other service users.

The mood chart reveals periods of lows and highs over the four-months period which were variable in duration and intensity and sometime occurred in rapid succession.

In her mood presentation there was no remission between episodes but a direct switch from one polarity to another.

Her medication was Paroxetine 20mg orally in the morning and Chlorpromazine 10mg at night. This was reviewed during the period of study and Carbamazepine was added to her regimen with good effect after a couple of weeks. Her Serum Carbamazepine level was 9.2mg/l. Other laboratory investigations - liver function tests, thyroid profile, electrolytes and urea and full blood count were within normal limits.

Sturmey (2002) highlighted that in dual diagnosis, the occurrence of mental health problems and intellectual disability not only faces problems over the definition of learning disabilities but also over the definition of mental health. Apart from the problem of definition, there is also a problem of the relationship.

Some argue that challenging behaviour is a symptom of underlying psychiatric disorder, which can be treated with medication by experts in mental health (Aman *et al.*, 1995). Others argue that challenging behaviours are merely learned behaviours and are acquired by conditioning. Yet others perceive challenging behaviour as a means of communication. The issue remains unresolved.

The problem of diagnosing mental health issues, especially bipolar affective disorder in those with intellectual disability was also highlighted by Vanstraelen and Tyrer (1999) and Pfadt *et al.* (2003); it is often difficult in subjects with poor communication skills. The reported symptomatology is characterised more by description of observable behaviours than by reports of subjective mood states because of poor ability of those with learning disability to express mood verbally. During episodes of hypomania, insomnia, increased activity, pressure of speech and agitation were the main presenting symptoms. During the depressive episodes hypersomnia, social withdrawal and hypo activity were reported frequently, muteness and stupor may occur in some patients. It may be that milder degrees of mood disturbance were not detected in the population giving an apparent preponderance of severe affective disorder.

All varieties of dual diagnosis of psychiatric disorder and intellectual disability occur but the symptoms are often greatly modified by low intelligence (Borthwick-Duffy, 1994; Fraser and Nolan, 1994). Delusions, hallucinations and obsessions may not be easily recognised in people with severe disability and limited language development. Other symptoms may be difficult to detect because patients need a minimum verbal fluency, probably at an

IQ level of about 50, to describe their experiences. Hence in diagnosing psychiatric disorder among people with intellectual disability more emphasis has to be given to behaviour and less to reports of mental phenomenon than would be the case in people of normal intelligence.

In this case report indicators for activation, euthymia and withdrawal were first identified, e.g. periods of excessive cheerfulness, increased activity, aggression, kicking, punching, overtalkative, tearful episodes, self-injurious behaviour, poor sleep, no interest, anxiety, no eye contact, interacting well with staff/other service users, alert aware of surroundings, watching TV, engagement in appropriate activities.

These behavioural indicators were then carefully recorded and noted on the modified informant based mood tracking sheet. The degree of impairment was also recorded and data subsequently translated graphically.

One limitation of the study is the fact that judging the level of impairment is admittedly subjective and for this reason it is difficult to compare ratings made on different days by different raters or across different shifts and settings. We have tried to minimise this as much as possible by getting as few staff as possible to complete the tracking sheet and to meet with staff regularly to review the scoring criteria.

Another limitation of the bipolar tracking sheet as already highlighted by Pfadt *et al.* (2003) is that it is cumbersome to use in individuals who display mixed affective states characterised by indicators of both activation and withdrawal at the same time. It is also difficult to use in people with ultra rapid cycling affective disorder and ultradian cycles, i.e. marked changes within a 24 hour period.

The reported prevalence of psychiatric disorder is much higher than that in the

general population but the range of estimates is wide (Corbett, 1979; Reiss, 1990) in part due to methodological problems (Borthwick-Duffy, 1994). This includes problems in defining and recognising both the mental retardation and assessing the severity and the psychiatric disorder as well as the problem of sampling and drawing control groups from the general population. Rates of psychiatric disorder are related to intellectual level and they are lowest in those living at home (Borthwick-Duffy, 1994).

The differential diagnosis of affective disorder would have to include organic and medical causes, for example thyroid dysfunction which is prevalent in those with Down's syndrome. The principles of treatment of affective disorder among the people with learning disability are essentially the same as among people of normal intelligence.

Lithium, Carbamazepine and Valproate were the most frequently used drugs in the treatment of rapid cycling bipolar affective disorder in the systematic review by Vanstraelen and Tyler (1999). Lithium was noted to have increased the frequency of the cycles in one patient, another patient became more aggressive and Lithium was stopped in a third patient because of side effects.

Combination treatments with Lithium and Sodium Valproate is helpful for some patients, so also is the addition of thyroid hormone, which led to the alleviation of symptomatology for some.

Relative resistance to Lithium prophylaxis is an issue in people with rapid cycling bipolar affective disorder. Because of this alternative mood stabilisers such as Carbamazepine and Valproate, have been used. It has been suggested that these alternative drugs are more effective in this population (Calabrese and Woynshville, 1995).

A Canadian systematic review suggested that Sodium Valproate is likely to be more efficacious than Carbamazepine and Lithium in prophylaxis, especially when mania is part of a rapid cycling course (Kusumakar *et al.*, 1997).

In this case report Ms C's medication was reviewed and Carbamazepine was added to her regimen with good effects after a review of her diagnostic formulation.

Bipolar disorder is a prevalent condition among people with developmental disabilities (Pary *et al.*, 1999) and it is often responsive to treatment once the appropriate diagnosis has been made (King and McCartney, 1999).

Summary

This study reports the findings from a single case report. In people with learning disabilities, affective disorder is common and the clinician needs to be alert to the possibility of a rapid cycling bipolar affective disorder, which may present as an escalation of challenging behaviour and make it potentially more difficult to diagnose and manage, as presented by Ms C. Clinical suspicion is important but attention needs to be paid to careful, objective assessment and documentation of actual incidents and behaviours by carers. Plotting of the mood chart using a modified informant based tracking instrument and evaluation of the graph so obtained is a useful clinical tool in reaching the diagnosis. It is never too late to attempt an accurate diagnosis of a reported prolonged history of challenging behaviour.

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