

# Stress-Vulnerability Model

## Hypothesised vulnerabilities

### **Genetic**

Bipolar is not likely to be related to a single gene and the difficulties people experience are more likely to be a result of complex interactions between genes and environment. Some research does indicate a genetic vulnerability (e.g. some studies have estimated the monozygotic (identical) twin concordance rate for the disorder at 70%. This means that if a person has the disorder, an identical twin has a 70% likelihood of having the disorder as well. Dizygotic (non-identical) twins have a 23% concordance rate). However, these concordance rates are not universally replicated in the literature (recent studies have shown rates of around 40% for monozygotic and less than 10% for dizygotic twins). Also twin studies in mental health have increasingly been critiqued e.g. identical twins tend to be treated more similarly than non-identical twins; and mental illness tends to be only diagnosed in those who have had disturbed upbringings – see *The Gene Illusion* by Jay Joseph.

### **Biochemical imbalance**

Some neurotransmitters seem important regarding mood, and disturbances in such brain biochemicals (e.g. serotonin, noradrenaline) have been hypothesised as important. However, a large number of brain biochemicals are involved in all human behaviour and no-one knows the correct ‘levels’ for any brain biochemical in a person’s brain: they cannot be measured in an individual person, thus there is no test to see if an individual has a biochemical imbalance. Brain biochemicals are released as a person responds to their environment, thinks and feels – this does not mean that they cause difficulties such as low mood.

### **Alteration in brain structure**

Early trauma (e.g. a difficult birth), a virus, long term stress (causing raised levels of cortisone) or prolonged abusive or neglectful experiences may impact on parts of the brain which are involved in emotional states, sleep and arousal.

### **Hormones and circadian rhythms**

Some people may have regulation difficulties regarding hormonal systems, which may be genetic and/or related to certain neurotransmitters. People’s biological clocks may affect their circadian rhythms (e.g. sleep-wake cycles) in ways that make them vulnerable to extreme highs and lows. Longer-term cycles (e.g. relating to sunlight/seasons) affect some people more than others.

### **Psychological/Environment**

- (i) Certain features of personality may predispose someone to being diagnosed as bipolar e.g. extraversion.
- (ii) Childhood experiences may influence personality development and adult behaviours – research has highlighted ‘critical and hostile parenting’ and ‘being treated as a child during adolescence’ as possible important factors; long-term stress during childhood may create vulnerabilities to stress in adulthood; therapists have identified many experiences as potentially problematic for life later on.
- (iii) People may have developed habits in terms of the way they react to certain environments or situations which may lead to them getting extremely high or low.

(iv) Psychological defences may help people feel safer but may also lead to problems e.g. regression means people operate in more ‘child-like ways’, such as feeling overwhelmingly helpless, or over-excited; mania and depression, in very different ways, may act as a defence against thinking and decision making; grandiosity may protect against low confidence or self-esteem.

(v) Long-term stress may lead to manic states, with subsequent ‘burnout’ being experienced as depression.

## **Stressors/Triggers**

### **Life Events**

Life events (e.g. bereavement, getting married, having a baby) can trigger severe mood changes. Emotional reactions affect biological vulnerability to stress. Some women are at high risk of mania or depression following childbirth.

### **Sleep disruption**

Changes in an individual’s sleep routine appear to sometimes upset the biological clock which can lead to highs or lows. Too much sleep has been associated with depression (lessening the time spent sleeping has been shown to reduce depression) Lack of sleep has been associated with mania (increasing sleep decreases mania).

### **Stress**

Stress (e.g. at work, such as ‘task overload’) can trigger episodes of severe mood change in individuals whose system is sensitive to stress.

### **Seasons**

Mood fluctuates with the seasons. For some, depression is more likely to occur in the winter months and mania in the spring.

### **Change in routine**

Irregular social rhythms (e.g. when you get up, go to work, eat, relax, etc) can play a major role in disrupting mood. A move to a distinctly different time-zone can affect mood. A crisis can affect sleep-wake cycle and social rhythms (e.g. people stop going to work or doing their normal routine).

### **Drugs**

Alcohol, caffeine, illicit substances such as cocaine and amphetamine, some prescription medications (such as steroids) and some over the counter preparations/remedies can lead to problematic mood changes.

Changes to psychiatric medication regimes can also cause problems e.g. SSRI anti-depressants can induce mania and suicidal thoughts as well as impact on sleep patterns.

### **Social exclusion and discrimination**

These have been associated with increased number of hospital admissions for people diagnosed as bipolar/manic-depressive.

**For further information see British Psychological Society 2010 report**

***Understanding Bipolar Disorder: Why some people experience extreme mood states and what can help* (available for free download on [www.psychminded.co.uk](http://www.psychminded.co.uk))**