

Describe one biological model of a particular mental illness.

What are the limitations of this model?

The monoamine hypothesis of depression was first formulated over 40 years ago (Bunney & Davis, 1965) and continues to be influential today. This biological model states that depression is caused by underactivity of the monoamines in the brain such as serotonin (5HT), norepinephrine (noreadrenaline), and dopamine. This model was formulated after the observation that Reserpine, an antihypertensive agent that depletes brain serotonin stores, precipitated depression in a proportion of hypertensive patients (Muller et al., 1956).

The strongest evidence for this model is in the mechanism of action of antidepressant drugs. These agents that elevate the levels of the aforementioned neurotransmitters in the brain have shown to be effective in the alleviation of depressive symptoms. In fact, all current medications affect the serotonergic and noradrenergic systems. Selective Serotonin Reuptake Inhibitors (SSRIs) work by preventing the reuptake of serotonin, Noreadrenergic Reuptake Inhibitors (NARI) blocking the reuptake of noradrenaline, Serotonin Noradrenaline Reuptake Inhibitors (SNRI) block reuptake of both serotonin